



Plastics Interlaboratory Testing Program

Web Summary Report #126, 2nd Qtr 2023

[About CTS and the Plastics Interlaboratory Program](#)

[Key for Web Summary Report](#)

[Results Summary for this Report](#)

Analysis Analysis Name

[704 Tensile Stress at Yield, Plastic Samples](#)

[705 Tensile Stress at Break, Plastic Samples](#)

[706 Percent Elongation at Yield, Plastic Samples](#)

[708 Modulus of Elasticity, Plastic Samples](#)

[710 Deflection Temp. Under Flexural Load \(1.82 MPa\)](#)

[711 Deflection Temp. Under Flexural Load \(0.455 MPa\)](#)

[712 Temp. of Deflection Under Flexural Load 1.80 MPa](#)

[715 Vicat Softening Temperature \(Rate A\)](#)

[716 Vicat Softening Temperature \(Rate B\)](#)

[718 Specific Gravity](#)

[720 Flexural Modulus](#)

[721 Flexural Stress at 5% Strain](#)

[722 Flexural Stress at Yield](#)

[730 Tensile Stress at Yield, ISO Plastic Samples](#)

[731 Tensile Stress at Break, ISO Plastic Samples](#)

[732 Percent Strain at Yield, ISO Plastic Samples](#)

[734 Modulus of Elasticity, ISO Plastic Samples](#)

[736 Flexural Modulus, ISO Plastic Samples](#)

[737 Flexural Stress at 3.5% Strain](#)

[738 Flexural Stress at Yield](#)

[750 Flow Rates of Thermoplastics \(2.16 kg load\)](#)

[755 Moisture Content of Plastics](#)

[757 Ash Content in Thermoplastics](#)

[758 Thermogravimetric Analysis](#)

[760 DSC Crystallization Temperature](#)

Analysis Analysis Name

[761 DSC Melt Temperature](#)

[762 DSC Enthalpy of Crystallization](#)

[763 DSC Enthalpy of Fusion](#)

[764 DSC Glass Transition Temperature](#)

[765 DSC Crystallization Peak Temperature - Research](#)

[766 DSC Melting Peak Temperature - Research](#)

[767 DSC Heat of Crystallization - Research](#)

[768 DSC Heat of Fusion - Research](#)

[769 DSC Glass Transition Temperature - Research](#)

[770 Tensile Stress at Yield, Film Samples](#)

[771 Tensile Stress at Break, Film Samples](#)

[772 Percent Elongation at Yield, Film Samples](#)

[773 Percent Elongation at Break, Film Samples](#)

[774 Thickness of Film Tensile Samples](#)

[775 Secant Modulus at 1% Strain](#)

[776 Secant Modulus at 2% Strain](#)

[780 Coefficient of Friction: Static](#)

[781 Coefficient of Friction: Kinetic](#)

[782 Tear Resistance of Films](#)

[785 Optical Properties of Films - Percent Haze](#)

[786 Optical Properties of Films: % Transmittance](#)

[790 Notched Izod Impact](#)

[791 Notched Izod Impact \(ISO\)](#)

[792 Notched Charpy Impact, ISO Plastic Samples](#)

About CTS and the Plastics Interlaboratory Program

Founded in 1971, Collaborative Testing Services, Inc. (CTS) is a privately-owned company that specializes in interlaboratory tests for a wide variety of industries, including rubber, plastics, fasteners and metals, containerboard, paper, color, agriculture, hemp, and wine, as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality control objectives. Labs from the U.S., as well as more than 100 countries currently participate in CTS programs.

Collaborative Testing Services initiated the Collaborative Reference Program for PLASTICS in 1992 at the request of industry, ASTM committee D-20 members, and accrediting bodies. Additional test methods are always under review and are incorporated into the program when possible.

The program allows laboratories to compare periodically the level and uniformity of their testing with that of other participating laboratories. It also provides a realistic assessment of the state of plastics testing proficiency.

For each test there is a summary of the statistics for the analysis and a graphical representation of the data. Also shown are notes concerning specific laboratory results, as well as significant findings related to instrument types or other testing variations. Refer to the KEY FOR SUMMARY REPORT for an explanation of terms and guidelines for interpreting the results.

For further information contact:

COLLABORATIVE TESTING SERVICES, INC.
21331 Gentry Drive
Sterling, VA 20166
Phone: (571) 434-1925
FAX: (571) 434-1937
e-mail: plastics@cts-interlab.com

Office Hours: 8:00 a.m. - 4:30 p.m. ET

Key for Web Summary Report (Page 1 of 2)

WebCode	Assigned laboratory identification number (temporary) used to ensure lab confidentiality while permitting a lab to locate its data in the Plastics Web Summary Report published on the CTS web site. The WebCode for each analysis can be found in the Performance Analysis Report mailed to each participant.
Lab Mean	The average of the test results obtained by the participant.
Grand Mean	The average of the LAB MEANS for all included participants. Laboratories flagged with an X or an M (see DATA FLAG column) are excluded from the GRAND MEAN.
Difference from Grand Mean	The difference of the LAB MEAN from the GRAND MEAN.
Between-Lab Standard Deviation	An indication of the precision of measurement between the laboratories. The greater the spread of the LAB MEANS about the GRAND MEAN, the larger the BETWEEN-LAB STANDARD DEVIATION (and vice versa).
Comparative Performance Value	An indication of how well a laboratory's results agree with the other participants. The CPV is a ratio indicating the number of standard deviations from the GRAND MEAN. The closer a laboratory's COMPARATIVE PERFORMANCE VALUE is to zero, the more consistent its results are with the other participants' data (and vice versa). The critical value for each CPV will vary depending on the number of labs participating in a test.
Inst Code	A code indicating the manufacturer of the instrument used to perform the test (see separate INSTRUMENT CODE LIST for each test section) if instruments are tracked.
Data Flag	DATA FLAGS are assigned based on the simultaneous analysis of both samples tested. Refer to the following chart for an explanation of each symbol:

<u>DATA FLAG</u>	<u>STATISTICALLY INCLUDED/EXCLUDED</u>	<u>ACTION REQUIRED</u>
*	INCLUDED	CAUTION - review testing procedure and monitor future results. Results fall outside 95% ellipse but within a 99% ellipse that is calculated but not drawn.
X	EXCLUDED	STOP - immediate review of data and/or testing procedure is required. Results fall outside the 99% ellipse. See specific notes following each table for more information on why the data is excluded.
M	EXCLUDED	PROCEED - lab was unable to report data for at least one sample.

Graph - For each laboratory, the LAB MEAN for the first sample (x-axis) is plotted against the LAB MEAN for the second sample (y-axis) with each point representing a laboratory. The horizontal and vertical cross-hairs are the GRAND MEANS for each sample. When 20 or more laboratories are in the statistics, an ellipse is also drawn so that 95% of the time a randomly selected laboratory will be included inside the ellipse. Plotted data flags are explained above.

Common Problems Highlighted in Footnotes

1. **Extreme data** - The laboratory's results for one or both samples are so inconsistent with those of the other participants that the lab mean(s) fall outside the plot. The participant is advised to immediately review his data and/or testing procedure.
2. **Systematic bias** - The laboratory's results are either consistently high or low for both samples when compared to the other participants (the plotted point falls near the top or bottom of the ellipse). This indicates that the participant is performing the test with a constant bias. Causes of systematic errors include improper calibration, the particular make/model of equipment or a modification to the testing procedure.
3. **Inconsistency in testing between samples/sample sets** - The laboratory's results indicate that there are differences in the way the two samples tested (the plotted point falls to the side of the ellipse). This type of error may be attributed to the analyst deviating from the procedure when testing one of the samples or a material interaction occurrence with the instrument or room conditions. The inconsistency is reflected in the CPVs for the two samples, such as a +1.5 CPV for sample A and a -2.2 CPV for sample B. CTS also will specify if the laboratory's data for one sample are high/low compared to the other participants. If this inconsistency is slight, the lab's plotted point will be an * that falls on the edge of the ellipse.
4. **Inconsistency in testing within a sample** - The laboratory's within-lab standard deviation for a specified sample is high when compared to the other participants, often causing the lab's plotted point to fall outside of the ellipse.

Labs flagged with an * are not typically included in the footnotes of a data table. These labs may locate their position in the control ellipse and use the definitions above to help identify the type of testing error. An * should serve as a caution flag, a "yellow light", to a lab. If this error is repeated in future rounds, a lab may need to stop and review its testing procedures. The initial data flag is not cause for alarm. Interlaboratory tests conducted at regular intervals permit a lab to recognize trends in testing.



Plastics Interlaboratory Testing Program

Results Summary for Report #126, 2nd Qtr 2023

Analysis 704 - Tensile Stress at Yield

Material: ABS	Sample F91	6,652.90	psi	1.88% COV
	Sample F92	6,656.39	psi	1.79% COV

Analysis 705 - Tensile Stress at Break

Material: ABS	Sample F91	5,152.01	psi	4.35% COV
	Sample F92	5,139.03	psi	4.34% COV

Analysis 706 - Percent Elongation at Yield

Material: ABS	Sample F91	2.4412	Percent	3.55% COV
	Sample F92	2.4384	Percent	3.21% COV

Analysis 708 - Modulus of Elasticity

Material: ABS	Sample F91	351.61	ksi	5.52% COV
	Sample F92	350.23	ksi	5.00% COV

Analysis 710 - Deflection Temp. Under Flexural Load (1.82 MPa)

Material: ABS/PC	Sample E91	105.03	Degrees C	2.58% COV
	Sample E92	105.32	Degrees C	2.63% COV

Analysis 711 - Deflection Temp. Under Flexural Load (0.455 MPa)

Material: PP	Sample G91	112.48	Degrees C	4.58% COV
	Sample G92	112.15	Degrees C	5.56% COV

Analysis 712 - Temperature of Deflection (1.80 MPa)

Material: ABS/PC	Sample N91	104.64	Degrees C	1.42% COV
	Sample N92	104.42	Degrees C	1.41% COV

Analysis 715 - Vicat Temperature (Rate A)

Material: ABS	Sample H91	103.04	Degrees C	1.04% COV
	Sample H92	103.07	Degrees C	1.05% COV

Analysis 716 - Vicat Temperature (Rate B)

Material: ABS	Sample R91	105.00	Degrees C	1.43% COV
	Sample R92	104.92	Degrees C	1.53% COV

Analysis 718 - Specific Gravity

Material: ABS	Sample T91	1.0296	sp gr 23/23 C	0.192% COV
	Sample T92	1.0298	sp gr 23/23 C	0.183% COV

Analysis 720 - Flexural Modulus

Material: ABS/PC	Sample J91	341.55	ksi	4.36% COV
	Sample J92	343.58	ksi	4.56% COV

Analysis 721 - Flexural Stress at 5% Strain

Material: ABS/PC	Sample J91	11,591.48	psi	4.30% COV
	Sample J92	11,636.80	psi	4.27% COV

Analysis 722 - Flexural Stress at Yield

Material: ABS/PC	Sample J91	11,730.85	psi	5.76% COV
	Sample J92	11,773.37	psi	5.74% COV

Analysis 730 - Tensile Stress at Yield, ISO Method

Material: HIPS	Sample C91	23.463	MPa	2.79% COV
	Sample C92	23.490	MPa	2.58% COV

Analysis 731 - Tensile Stress at Break, ISO Method

Material: HIPS	Sample C91	18.097	MPa	3.01% COV
	Sample C92	18.136	MPa	3.14% COV



Plastics Interlaboratory Testing Program

Results Summary for Report #126, 2nd Qtr 2023

Analysis 732 - Strain at Yield, ISO Method

Material: HIPS	Sample C91	1.5056	Percent	4.03% COV
	Sample C92	1.5046	Percent	3.86% COV

Analysis 734 - Modulus of Elasticity, ISO Method

Material: HIPS	Sample C91	1,783.19	MPa	4.10% COV
	Sample C92	1,786.76	MPa	3.86% COV

Analysis 736 - Flexural Modulus

Material: HIPS	Sample K91	1,800.67	MPa	4.01% COV
	Sample K92	1,798.72	MPa	4.25% COV

Analysis 737 - Flexural Stress at 3.5% Strain

Material: HIPS	Sample K91	37.508	MPa	3.43% COV
	Sample K92	37.545	MPa	3.54% COV

Analysis 738 - Flexural Stress at Yield

Material: HIPS	Sample K91	37.550	MPa	3.31% COV
	Sample K92	37.611	MPa	3.35% COV

Analysis 750 - Flow Rate (190C or 230C/2.16 kg)

Material: PP	Sample X91	12.127	grams/10 mins	5.56% COV
	Sample X92	12.173	grams/10 mins	5.50% COV

Analysis 755 - Moisture Content

Material: HIPS	Sample Y91	0.01926	Percent	62.3% COV
	Sample Y92	0.01905	Percent	66.2% COV

Analysis 757 - Ash Content

Material: PBT	Sample L91	29.671	Percent	0.541% COV
	Sample L92	29.700	Percent	0.264% COV

Analysis 758 - TGA

Material: PP	Sample A91	78.610	Percent	2.49% COV
	Sample A92	79.241	Percent	0.726% COV

Analysis 760 - DSC Crystallization Temperature

Material: PBT	Sample W91	172.78	Degrees Celsius	2.42% COV
	Sample W92	173.25	Degrees Celsius	2.52% COV

Analysis 761 - DSC Melt Temperature

Material: PBT	Sample W91	223.38	Degrees Celsius	0.555% COV
	Sample W92	223.28	Degrees Celsius	0.513% COV

Analysis 762 - DSC Enthalpy of Crystallization

Material: PBT	Sample W91	46.987	Joules Per Gram	9.21% COV
	Sample W92	47.401	Joules Per Gram	9.54% COV

Analysis 763 - DSC Enthalpy of Fusion

Material: PBT	Sample W91	42.079	Joules Per Gram	14.1% COV
	Sample W92	42.839	Joules Per Gram	13.3% COV

Analysis 764 - DSC Glass Transition Temperature

Material: PET	Sample V91	81.501	Degrees Celsius	2.57% COV
	Sample V92	81.705	Degrees Celsius	2.35% COV

Analysis 765 - Research Crystallization Peak Temperature

Material: PBT	Sample W91	171.10	Degrees Celsius	4.66% COV
	Sample W92	171.79	Degrees Celsius	3.82% COV



Plastics Interlaboratory Testing Program

Results Summary for Report #126, 2nd Qtr 2023

Analysis 766 - Research Melting Peak Temperature

Material: PBT	Sample W91	223.11	Degrees Celsius	0.461% COV
	Sample W92	222.73	Degrees Celsius	0.374% COV

Analysis 767 - Research Heat of Crystallization

Material: PBT	Sample W91	46.344	Joules Per Gram	11.4% COV
	Sample W92	46.619	Joules Per Gram	11.4% COV

Analysis 768 - Research Heat of Fusion

Material: PBT	Sample W91	43.054	Joules Per Gram	15.7% COV
	Sample W92	43.837	Joules Per Gram	13.6% COV

Analysis 769 - Research Glass Transition Temperature

Material: PET	Sample V91	79.876	Degrees Celsius	5.48% COV
	Sample V92	80.203	Degrees Celsius	5.34% COV

Analysis 770 - Tensile Stress at Yield, Films

Material: LDPE	Sample B91	1,763.37	psi	8.91% COV
	Sample B92	1,744.25	psi	10.6% COV

Analysis 771 - Tensile Stress at Break, Films

Material: LDPE	Sample B91	3,691.32	psi	14.0% COV
	Sample B92	3,359.00	psi	14.3% COV

Analysis 772 - Elongation at Yield, Films

Material: LDPE	Sample B91	36.886	Percent	45.9% COV
	Sample B92	57.570	Percent	47.4% COV

Analysis 773 - Elongation at Break, Films

Material: LDPE	Sample B91	842.68	Percent	13.6% COV
	Sample B92	716.35	Percent	12.7% COV

Analysis 774 - Thickness of Film Specimens

Material: LDPE	Sample B91	2.8449	mils	8.14% COV
	Sample B92	2.7904	mils	11.9% COV

Analysis 775 - Secant Modulus at 1% Strain

Material: LDPE	Sample B91	32,140.70	psi	8.72% COV
	Sample B92	29,432.32	psi	10.3% COV

Analysis 776 - Secant Modulus at 2% Strain

Material: LDPE	Sample B91	27,628.03	psi	9.55% COV
	Sample B92	25,253.63	psi	8.89% COV

Analysis 780 - Static Friction

Material: LDPE	Sample P91	0.16720	COF	29.5% COV
	Sample P92	0.16433	COF	30.5% COV

Analysis 781 - Kinetic Friction

Material: LDPE	Sample P91	0.09876	COF	38.3% COV
	Sample P92	0.10648	COF	38.2% COV

Analysis 782 - Tear Resistance of Film

Material: LDPE	Sample Q91	328.05	grams-force	13.4% COV
	Sample Q92	320.55	grams-force	23.6% COV

Analysis 785 - Percent Haze

Material: LDPE	Sample D91	25.954	Percent	4.97% COV
	Sample D92	18.975	Percent	4.21% COV



Plastics Interlaboratory Testing Program

Results Summary for Report #126, 2nd Qtr 2023

Analysis 786 - Total Transmittance

Material: LDPE	Sample D91	92.396	Percent	1.39% COV
	Sample D92	92.456	Percent	1.48% COV

Analysis 790 - Notched Izod Impact

Material: ABS/PC	Sample S91	10.546	ft.lbf/in	7.15% COV
	Sample S92	10.565	ft.lbf/in	6.76% COV

Analysis 791 - Notched Izod Impact

Material: HIPS	Sample Z91	9.2540	kJ/m ²	6.53% COV
	Sample Z92	9.2491	kJ/m ²	6.05% COV

Analysis 792 - Notched Charpy Impact

Material: HIPS	Sample M91	9.5473	kJ/m ²	5.74% COV
	Sample M92	9.5465	kJ/m ²	5.39% COV



Plastics Interlaboratory Testing Program

Report #126

Analysis 704

2nd Qtr 2023

Tensile Stress at Yield - psi

WebCode	Data Flag	Sample F91			Sample F92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
23TFHE		6,626.2	-26.7	-0.21	6,670.0	13.6	0.11
2KZLFG		6,772.0	119.1	0.95	6,829.2	172.8	1.45
2PGFKZ		6,642.8	-10.1	-0.08	6,671.8	15.4	0.13
3MRBML		6,728.0	75.1	0.60	6,710.0	53.6	0.45
3VXQ3N		6,546.0	-106.9	-0.86	6,570.6	-85.8	-0.72
6AXQYU		6,834.2	181.3	1.45	6,851.6	195.2	1.64
778J2X		6,476.8	-176.1	-1.41	6,523.2	-133.2	-1.12
7NKY88		6,575.6	-77.3	-0.62	6,535.2	-121.2	-1.02
8G7JAV	*	6,641.0	-11.9	-0.10	6,534.6	-121.8	-1.02
8JUV92		6,534.0	-118.9	-0.95	6,564.0	-92.4	-0.78
AHD7QD		6,756.4	103.5	0.83	6,694.4	38.0	0.32
B8PYJV		6,495.8	-157.1	-1.26	6,524.6	-131.8	-1.11
B9Y7LN		6,571.6	-81.3	-0.65	6,635.2	-21.2	-0.18
BETEHW	X	7,281.0	628.1	5.02	7,252.0	595.6	5.00
CCWKTQ		6,705.3	52.4	0.42	6,710.8	54.4	0.46
D846VQ		6,828.4	175.5	1.40	6,796.5	140.1	1.18
D9DPQY		6,836.0	183.1	1.46	6,866.0	209.6	1.76
DYQNAP		6,636.0	-16.9	-0.14	6,612.0	-44.4	-0.37
E3MPTH		6,813.9	161.0	1.29	6,819.7	163.3	1.37
EBV4UY		6,860.3	207.4	1.66	6,863.3	206.9	1.74
EHHL3N		6,685.0	32.1	0.26	6,678.4	22.0	0.18
EWf42E	X	6,895.3	242.4	1.94	7,048.9	392.5	3.30
F8AYCF		6,796.0	143.1	1.14	6,813.0	156.6	1.32
GKV9LL		6,563.4	-89.5	-0.72	6,622.5	-33.9	-0.29
GQHTVT		6,811.8	158.9	1.27	6,719.2	62.8	0.53
GWUADA		6,715.6	62.7	0.50	6,725.6	69.2	0.58
HKQGHN		6,776.5	123.6	0.99	6,808.6	152.2	1.28
HNPJZH		6,634.8	-18.1	-0.14	6,637.6	-18.8	-0.16
JMMA9J		6,564.6	-88.3	-0.71	6,543.4	-113.0	-0.95
JNQ729		6,645.1	-7.8	-0.06	6,687.7	31.4	0.26
JVM22T		6,703.4	50.5	0.40	6,737.8	81.4	0.68
KF49H9	X	6,705.0	52.1	0.42	6,513.3	-143.1	-1.20
KGNAx3		6,702.0	49.1	0.39	6,702.0	45.6	0.38
KHXR49		6,358.6	-294.3	-2.35	6,383.4	-273.0	-2.29
KR9LB2		6,425.6	-227.3	-1.82	6,473.4	-183.0	-1.54



Plastics Interlaboratory Testing Program

Report #126

Analysis 704

2nd Qtr 2023

Tensile Stress at Yield - psi

WebCode	Data Flag	Sample F91			Sample F92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
KWEE4B		6,634.8	-18.1	-0.14	6,711.2	54.8	0.46
L7KLE6		6,751.9	99.0	0.79	6,753.9	97.5	0.82
LDJ7JL		6,546.0	-106.9	-0.86	6,490.8	-165.6	-1.39
LK2GQU		6,676.0	23.1	0.18	6,641.6	-14.8	-0.12
MKC79T	X	6,483.8	-169.1	-1.35	6,755.3	98.9	0.83
NFZHL3		6,794.4	141.5	1.13	6,763.0	106.6	0.90
NHQ9MT		6,616.0	-36.9	-0.30	6,542.0	-114.4	-0.96
NLMZNX		6,602.2	-50.7	-0.41	6,654.4	-2.0	-0.02
NYN9E8	X	6,010.4	-642.5	-5.14	6,027.8	-628.6	-5.28
PHF73X		6,470.8	-182.1	-1.46	6,569.7	-86.7	-0.73
PL4DUL		6,724.0	71.1	0.57	6,755.9	99.5	0.84
PN6LWB		6,708.9	56.0	0.45	6,725.5	69.1	0.58
PUXJMM		6,606.4	-46.5	-0.37	6,638.6	-17.8	-0.15
QJTQXT		6,611.0	-41.9	-0.34	6,617.2	-39.2	-0.33
RURKEH	*	6,381.8	-271.1	-2.17	6,341.8	-314.6	-2.64
RX8LK3		6,614.6	-38.3	-0.31	6,632.6	-23.8	-0.20
T2YAEF		6,726.3	73.4	0.59	6,708.9	52.5	0.44
U8HKKA		6,738.6	85.7	0.69	6,711.0	54.6	0.46
UBMXX4		6,685.8	32.9	0.26	6,659.4	3.0	0.02
ULMH43		6,590.6	-62.3	-0.50	6,631.2	-25.2	-0.21
UZ4Y4X		6,618.0	-34.9	-0.28	6,604.0	-52.4	-0.44
VYMNR7	*	6,866.0	213.1	1.70	6,764.0	107.6	0.90
WF6498		6,730.0	77.1	0.62	6,692.0	35.6	0.30
WVLMZT		6,450.3	-202.6	-1.62	6,473.6	-182.8	-1.54
X4CZLT		6,579.6	-73.3	-0.59	6,561.4	-95.0	-0.80
XDHK8A		6,513.4	-139.5	-1.12	6,567.8	-88.6	-0.74
ZBJHRW		6,866.0	213.1	1.70	6,854.0	197.6	1.66
ZGR8M4		6,502.0	-150.9	-1.21	6,490.0	-166.4	-1.40

Summary Statistics

	Sample F91	Sample F92
Grand Means	6,652.90 psi	6,656.39 psi
Std Dev Btwn Labs	125.00 psi	119.04 psi

Statistics based on 58 of 63 reporting participants

Sample F91: ABS & Sample F92: ABS



Plastics Interlaboratory Testing Program

Analysis 704

Tensile Stress at Yield - psi

Report #126

2nd Qtr 2023

Comments on Assigned Data Flags for Test #704

BETEHW (X) - Data for both samples are high. Possible Systematic Error.

EWF42E (X) - Data for sample F92 are high. Inconsistent within the determinations of sample F92.

NYN9E8 (X) - Data for both samples are low. Possible Systematic Error.

MKC79T (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample F91.

KF49H9 (X) - Inconsistent in testing between samples.



Plastics Interlaboratory Testing Program

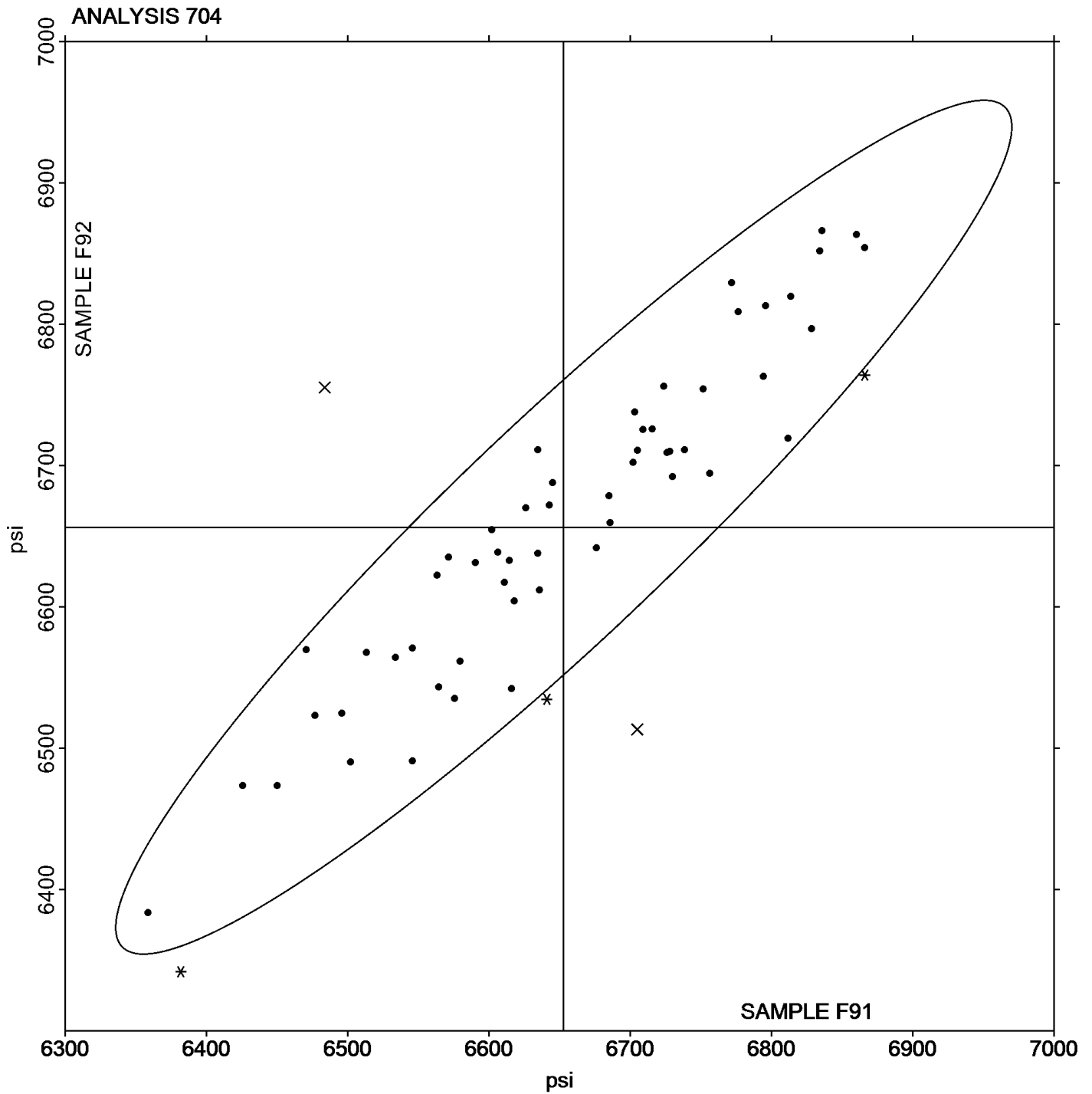
Analysis 704

Tensile Stress at Yield - psi

Report #126

2nd Qtr 2023

Grand Mean Sample F91: 6,652.90 psi Grand Mean Sample F92: 6,656.39 psi





Plastics Interlaboratory Testing Program

Report #126

Analysis 705

2nd Qtr 2023

Tensile Stress at Break - psi

WebCode	Data Flag	Sample F91			Sample F92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
23TFHE		5,106.4	-45.6	-0.20	5,017.4	-121.6	-0.54
2KZLFG		5,290.8	138.8	0.62	5,380.4	241.4	1.08
2PGFKZ		5,134.4	-17.6	-0.08	5,018.3	-120.7	-0.54
3VXQ3N		4,936.8	-215.2	-0.96	4,997.0	-142.0	-0.64
6AXQYU		5,021.3	-130.8	-0.58	5,044.5	-94.6	-0.42
778J2X		5,041.8	-110.2	-0.49	5,024.2	-114.8	-0.51
7NKY88		5,100.8	-51.2	-0.23	4,982.6	-156.4	-0.70
8G7JAV		5,045.2	-106.8	-0.48	4,925.2	-213.8	-0.96
8JUV92		4,906.0	-246.0	-1.10	5,026.0	-113.0	-0.51
AHD7QD	X	4,208.0	-944.0	-4.22	4,519.8	-619.2	-2.77
B8PYJV		5,110.2	-41.8	-0.19	5,018.0	-121.0	-0.54
B9Y7LN		5,097.6	-54.4	-0.24	4,987.2	-151.8	-0.68
BETEHW		5,656.5	504.5	2.25	5,482.5	343.4	1.54
CCWKTQ		5,143.0	-9.0	-0.04	5,195.3	56.3	0.25
D4Y89H		5,070.0	-82.0	-0.37	5,104.0	-35.0	-0.16
D846VQ		5,021.3	-130.8	-0.58	5,041.6	-97.5	-0.44
D9DPQY		5,196.2	44.2	0.20	5,338.2	199.2	0.89
DYQNAP		5,690.0	538.0	2.40	5,646.0	507.0	2.27
E3MPTH		4,960.3	-191.7	-0.86	5,009.6	-129.4	-0.58
EHHL3N		5,053.6	-98.4	-0.44	4,952.0	-187.0	-0.84
EW42E		5,376.3	224.3	1.00	5,558.3	419.3	1.88
F8AYCF		5,376.4	224.4	1.00	5,443.4	304.4	1.36
GKV9LL		5,150.7	-1.3	-0.01	5,167.4	28.4	0.13
GQHTVT		5,363.6	211.6	0.94	5,222.2	83.2	0.37
GWUADA		5,140.0	-12.0	-0.05	5,080.0	-59.0	-0.26
HKQGHN		5,131.3	-20.7	-0.09	5,195.0	56.0	0.25
HNPJZH		5,020.8	-131.2	-0.59	4,824.4	-314.6	-1.41
JMMA9J		5,214.2	62.2	0.28	5,155.4	16.4	0.07
JNQ729		4,920.6	-231.4	-1.03	5,010.8	-128.2	-0.57
JVM22T	*	5,779.8	627.8	2.80	5,744.2	605.2	2.71
KF49H9		5,278.6	126.6	0.57	5,104.1	-34.9	-0.16
KGNA3		5,096.8	-55.2	-0.25	5,083.2	-55.8	-0.25
KHXR49	X	4,047.8	-1,104.2	-4.93	4,751.4	-387.6	-1.74
KR9LB2		5,091.8	-60.2	-0.27	5,081.8	-57.2	-0.26
KWEE4B		5,302.1	150.1	0.67	5,521.5	382.4	1.71



Plastics Interlaboratory Testing Program

Report #126

Analysis 705

2nd Qtr 2023

Tensile Stress at Break - psi

WebCode	Data Flag	Sample F91			Sample F92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
L7KLE6		4,891.0	-261.0	-1.17	4,960.0	-179.0	-0.80
LDJ7JL		5,066.2	-85.8	-0.38	5,014.8	-124.2	-0.56
LK2GQU	*	4,808.2	-343.8	-1.54	5,114.8	-24.2	-0.11
MKC79T		5,176.6	24.6	0.11	5,318.4	179.4	0.80
NFZHL3		4,875.4	-276.6	-1.24	4,668.0	-471.0	-2.11
NHQ9MT		4,928.0	-224.0	-1.00	4,966.0	-173.0	-0.78
NLMZNX		5,172.1	20.1	0.09	5,250.4	111.4	0.50
NYN9E8		4,832.7	-319.3	-1.43	4,821.1	-317.9	-1.42
PHF73X	*	4,690.0	-462.0	-2.06	4,957.1	-181.9	-0.81
PL4DUL		5,167.4	15.4	0.07	5,148.0	9.0	0.04
PN6LWB		5,217.0	65.0	0.29	5,181.6	42.6	0.19
PUXJMM		5,294.0	142.0	0.63	5,046.0	-93.0	-0.42
QJTQXT		5,023.0	-129.0	-0.58	5,125.6	-13.4	-0.06
RURKEH		5,224.4	72.4	0.32	4,958.2	-180.8	-0.81
RX8LK3		5,007.3	-144.7	-0.65	5,050.5	-88.5	-0.40
T2YAEF		5,600.5	448.5	2.00	5,419.5	280.5	1.26
U8HKKA		5,335.0	183.0	0.82	5,287.8	148.8	0.67
UBMXX4	*	5,732.5	580.5	2.59	5,714.5	575.5	2.58
ULMH43		5,114.1	-37.9	-0.17	5,169.2	30.2	0.14
VYMNR7	X	6,863.4	1,711.4	7.64	6,764.2	1,625.2	7.28
WF6498		5,114.0	-38.0	-0.17	5,058.0	-81.0	-0.36
X4CZLT		5,071.8	-80.2	-0.36	4,875.4	-263.6	-1.18
XDHK8A		5,074.1	-77.9	-0.35	4,989.2	-149.9	-0.67
ZBJHRW		5,272.0	120.0	0.54	5,309.6	170.6	0.76

Summary Statistics		
	Sample F91	Sample F92
Grand Means	5,152.01 psi	5,139.03 psi
Std Dev Btwn Labs	223.95 psi	223.20 psi
Statistics based on 56 of 59 reporting participants		

Sample F91: ABS & Sample F92: ABS



Plastics Interlaboratory Testing Program

Analysis 705

Tensile Stress at Break - psi

Report #126

2nd Qtr 2023

Comments on Assigned Data Flags for Test #705

- AHD7QD (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample F92.
- KHXR49 (X) - Data for sample F91 are low. Inconsistent within the determinations of both samples.
- VYMNR7 (X) - Data for both samples are high. Possible Systematic Error.



Plastics Interlaboratory Testing Program

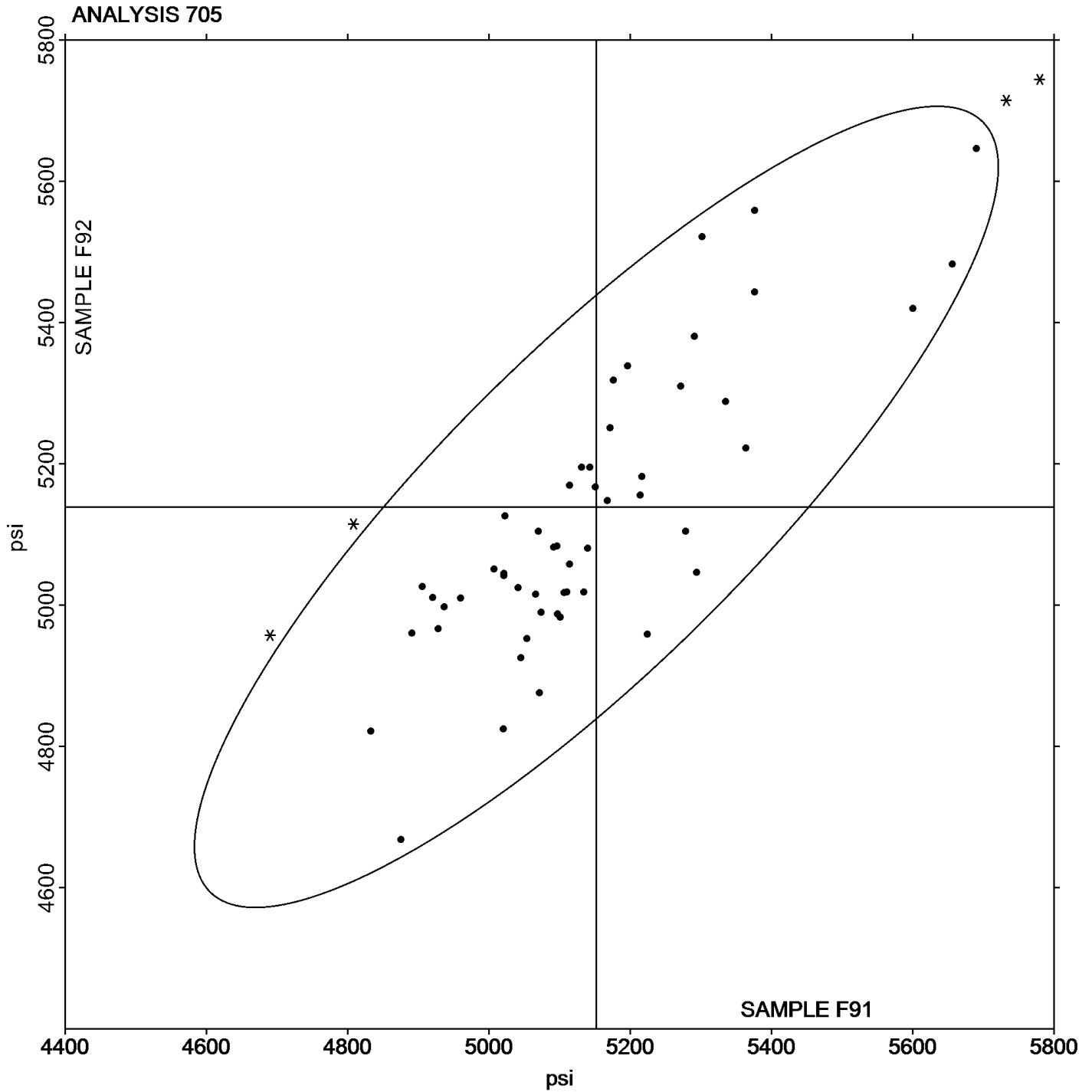
Analysis 705

Tensile Stress at Break - psi

Report #126

2nd Qtr 2023

Grand Mean Sample F91: 5,152.01 psi Grand Mean Sample F92: 5,139.03 psi





Plastics Interlaboratory Testing Program

Report #126

Analysis 706

2nd Qtr 2023

Percent Elongation at Yield - Percent

WebCode	Data Flag	Sample F91			Sample F92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
23TFHE		2.428	-0.013	-0.15	2.426	-0.012	-0.16
2KZLFG		2.418	-0.023	-0.27	2.374	-0.064	-0.82
2PGFKZ		2.416	-0.025	-0.29	2.420	-0.018	-0.23
3VXQ3N		2.484	0.043	0.49	2.484	0.046	0.58
6AXQYU		2.452	0.011	0.12	2.480	0.042	0.53
778J2X		2.282	-0.159	-1.84	2.252	-0.186	-2.38
7NKY88		2.460	0.019	0.22	2.520	0.082	1.04
8JUV92		2.606	0.165	1.90	2.566	0.128	1.63
AHD7QD		2.630	0.189	2.18	2.572	0.134	1.71
B8PYJV		2.282	-0.159	-1.84	2.278	-0.160	-2.05
B9Y7LN		2.454	0.013	0.15	2.458	0.020	0.25
BETEHW		2.518	0.077	0.89	2.538	0.100	1.27
CCWKTQ		2.428	-0.013	-0.15	2.440	0.002	0.02
D846VQ		2.560	0.119	1.37	2.520	0.082	1.04
D9DPQY		2.484	0.043	0.49	2.500	0.062	0.79
DYQNAP	X	3.086	0.645	7.44	2.998	0.560	7.14
E3MPH		2.500	0.059	0.68	2.500	0.062	0.79
EBV4UY		2.424	-0.017	-0.20	2.436	-0.002	-0.03
EHHL3N		2.426	-0.015	-0.17	2.527	0.089	1.13
F8AYCF		2.470	0.029	0.33	2.456	0.018	0.22
GKV9LL		2.400	-0.041	-0.48	2.400	-0.038	-0.49
GQHTVT		2.498	0.057	0.66	2.464	0.026	0.33
GWUADA		2.398	-0.043	-0.50	2.414	-0.024	-0.31
HNPJZH	*	2.486	0.045	0.52	2.360	-0.078	-1.00
JMMA9J		2.410	-0.031	-0.36	2.440	0.002	0.02
JNQ729		2.392	-0.049	-0.57	2.418	-0.020	-0.26
JVM22T		2.400	-0.041	-0.48	2.418	-0.020	-0.26
KF49H9		2.380	-0.061	-0.71	2.334	-0.104	-1.33
KGNA3		2.380	-0.061	-0.71	2.412	-0.026	-0.34
KR9LB2		2.402	-0.039	-0.45	2.402	-0.036	-0.46
KWEE4B	X	8.926	6.485	74.83	8.830	6.392	81.60
L7KLE6		2.432	-0.009	-0.11	2.442	0.004	0.05
LDJ7JL		2.400	-0.041	-0.48	2.410	-0.028	-0.36
LK2GQU		2.298	-0.143	-1.65	2.348	-0.090	-1.15
MKC79T	X	1.727	-0.715	-8.25	1.375	-1.063	-13.57



Plastics Interlaboratory Testing Program

Report #126

Analysis 706

2nd Qtr 2023

Percent Elongation at Yield - Percent

WebCode	Data Flag	Sample F91			Sample F92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NFZHL3	X	11.625	9.183	105.97	11.628	9.189	117.32
NHQ9MT	X	3.040	0.599	6.91	2.920	0.482	6.15
NLMZNX		2.572	0.131	1.51	2.478	0.040	0.51
NYN9E8	*	2.233	-0.209	-2.41	2.241	-0.198	-2.53
PHF73X		2.340	-0.101	-1.17	2.358	-0.080	-1.03
PL4DUL		2.390	-0.051	-0.59	2.478	0.040	0.51
PN6LWB		2.460	0.019	0.22	2.472	0.034	0.43
PUXJMM		2.380	-0.061	-0.71	2.338	-0.100	-1.28
QJTQXT		2.376	-0.065	-0.75	2.366	-0.072	-0.92
RURKEH		2.582	0.141	1.62	2.492	0.054	0.68
T2YAEF		2.466	0.025	0.29	2.420	-0.018	-0.23
U8HKKA		2.368	-0.073	-0.84	2.386	-0.052	-0.67
UBMXX4		2.449	0.008	0.09	2.422	-0.016	-0.21
ULMH43		2.556	0.115	1.32	2.544	0.106	1.35
VYMNR7		2.448	0.007	0.08	2.436	-0.002	-0.03
WF6498		2.454	0.013	0.15	2.398	-0.040	-0.52
WVLMZT		2.348	-0.094	-1.08	2.426	-0.012	-0.16
X4CZLT		2.586	0.145	1.67	2.576	0.138	1.76
XDHK8A		2.447	0.006	0.07	2.504	0.066	0.84
ZBJHRW		2.608	0.167	1.92	2.576	0.138	1.76

Summary Statistics

	Sample F91	Sample F92
Grand Means	2.4412 Percent	2.4384 Percent
Stnd Dev Btwn Labs	0.0867 Percent	0.0783 Percent

Statistics based on 50 of 55 reporting participants

Sample F91: ABS & Sample F92: ABS



Plastics Interlaboratory Testing Program

Analysis 706

Percent Elongation at Yield - Percent

Report #126

2nd Qtr 2023

Comments on Assigned Data Flags for Test #706

- NHQ9MT (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample F91.
- KWEE4B (X) - Extreme data.
- DYQNAP (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample F91.
- NFZHL3 (X) - Extreme data.
- MKC79T (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.



Plastics Interlaboratory Testing Program

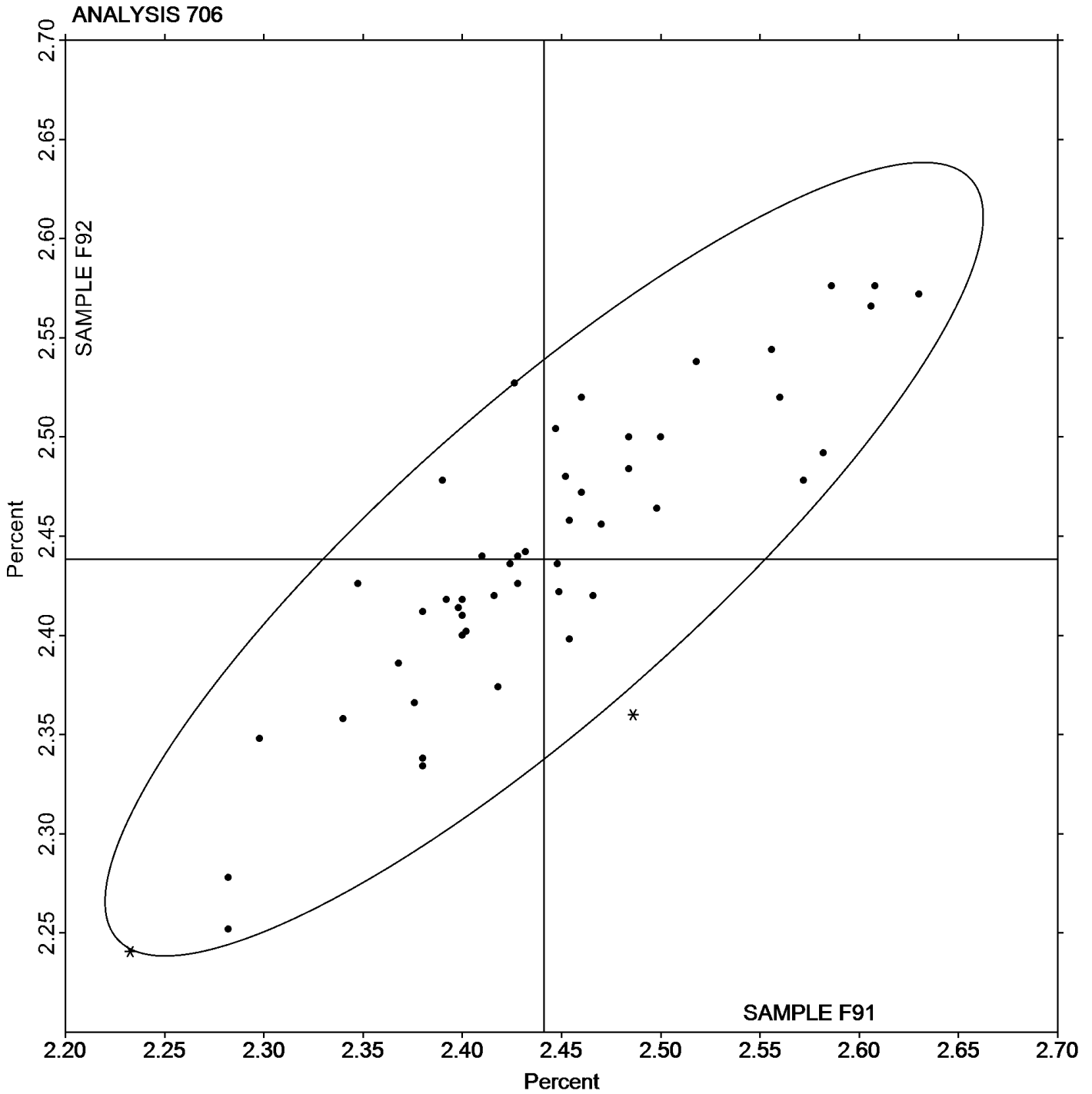
Report #126

Analysis 706

2nd Qtr 2023

Percent Elongation at Yield - Percent

Grand Mean Sample F91: 2.4412 Percent Grand Mean Sample F92: 2.4384 Percent





Plastics Interlaboratory Testing Program

Report #126

Analysis 708

2nd Qtr 2023

Modulus of Elasticity - ksi

WebCode	Data Flag	Sample F91			Sample F92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
23TFHE		358.56	6.95	0.36	361.82	11.59	0.66
2KZLFG	*	368.56	16.95	0.87	350.89	0.66	0.04
2PGFKZ	*	397.73	46.12	2.38	398.14	47.90	2.73
3VXQ3N		357.22	5.61	0.29	355.82	5.59	0.32
6AXQYU		357.61	6.00	0.31	353.43	3.20	0.18
778J2X		359.43	7.82	0.40	353.08	2.85	0.16
7NKY88		329.90	-21.71	-1.12	328.22	-22.01	-1.26
8JUV92		320.00	-31.61	-1.63	325.00	-25.23	-1.44
AHD7QD	X	187.78	-163.83	-8.45	188.82	-161.41	-9.21
B8PYJV		375.00	23.39	1.21	378.72	28.49	1.63
B9Y7LN		353.22	1.61	0.08	357.06	6.83	0.39
BETEHW		381.63	30.02	1.55	378.87	28.64	1.63
CCWKTQ		365.88	14.27	0.74	371.71	21.48	1.23
D846VQ		349.83	-1.78	-0.09	351.28	1.05	0.06
D9DPQY		362.70	11.09	0.57	363.14	12.90	0.74
DYQNAP		346.00	-5.61	-0.29	342.20	-8.03	-0.46
E3MPHT		347.51	-4.10	-0.21	349.54	-0.69	-0.04
EHHL3N	X	328.00	-23.61	-1.22	307.40	-42.83	-2.44
F8AYCF		359.26	7.65	0.39	358.50	8.27	0.47
GKV9LL		344.30	-7.31	-0.38	342.94	-7.29	-0.42
GQHTVT		340.06	-11.55	-0.60	338.46	-11.77	-0.67
GWUADA		350.80	-0.81	-0.04	349.40	-0.83	-0.05
HNPJZH	*	299.50	-52.11	-2.69	305.62	-44.61	-2.55
JMMA9J		342.00	-9.61	-0.50	340.62	-9.61	-0.55
JNQ729		345.04	-6.57	-0.34	343.70	-6.54	-0.37
JVM22T	X	351.96	0.35	0.02	378.78	28.55	1.63
KF49H9		350.36	-1.25	-0.06	354.62	4.38	0.25
KGNAX3		369.12	17.51	0.90	360.94	10.71	0.61
KR9LB2		366.58	14.97	0.77	353.76	3.53	0.20
KWEE4B	X	215.48	-136.12	-7.02	262.40	-87.84	-5.01
L7KLE6		355.47	3.86	0.20	355.17	4.94	0.28
LDJ7JL		361.24	9.63	0.50	355.16	4.93	0.28
LK2GQU		389.44	37.83	1.95	378.32	28.09	1.60
NHQ9MT		304.20	-47.41	-2.44	311.40	-38.83	-2.22
NLMZNX	X	324.89	-26.72	-1.38	349.83	-0.40	-0.02



Plastics Interlaboratory Testing Program

Report #126

Analysis 708

2nd Qtr 2023

Modulus of Elasticity - ksi

WebCode	Data Flag	Sample F91			Sample F92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NYN9E8		359.09	7.48	0.39	351.84	1.60	0.09
PHF73X		357.87	6.26	0.32	357.75	7.52	0.43
PL4DUL		362.86	11.25	0.58	351.60	1.37	0.08
PN6LWB		352.46	0.85	0.04	351.36	1.13	0.06
PUXJMM		364.08	12.47	0.64	364.22	13.99	0.80
QJTQXT		367.92	16.31	0.84	352.94	2.71	0.15
RURKEH		310.00	-41.61	-2.14	314.20	-36.03	-2.06
T2YAEF		353.78	2.17	0.11	346.06	-4.17	-0.24
U8HKKA		354.06	2.45	0.13	354.76	4.53	0.26
UBMXX4		347.78	-3.83	-0.20	350.43	0.20	0.01
ULMH43		332.14	-19.47	-1.00	338.52	-11.71	-0.67
VYMNR7		337.40	-14.21	-0.73	330.00	-20.23	-1.15
WF6498		361.20	9.59	0.49	363.20	12.97	0.74
WVLMZT		351.20	-0.41	-0.02	359.36	9.13	0.52
X4CZLT		326.16	-25.45	-1.31	323.28	-26.95	-1.54
XDHK8A		340.46	-11.15	-0.57	343.92	-6.31	-0.36
ZBJHRW		339.04	-12.57	-0.65	339.98	-10.25	-0.59

Summary Statistics		
	Sample F91	Sample F92
Grand Means	351.609 ksi	350.233 ksi
Std Dev Btwn Labs	19.398 ksi	17.521 ksi
Statistics based on 47 of 52 reporting participants		

Sample F91: ABS & Sample F92: ABS

Comments on Assigned Data Flags for Test #708

- JVM22T (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample F92.
- KWEE4B (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample F91.
- AHD7QD (X) - Data for both samples are low. Inconsistent within the determinations of sample F92.
- NLMZNX (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample F92.
- EHHL3N (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample F92.



Plastics Interlaboratory Testing Program

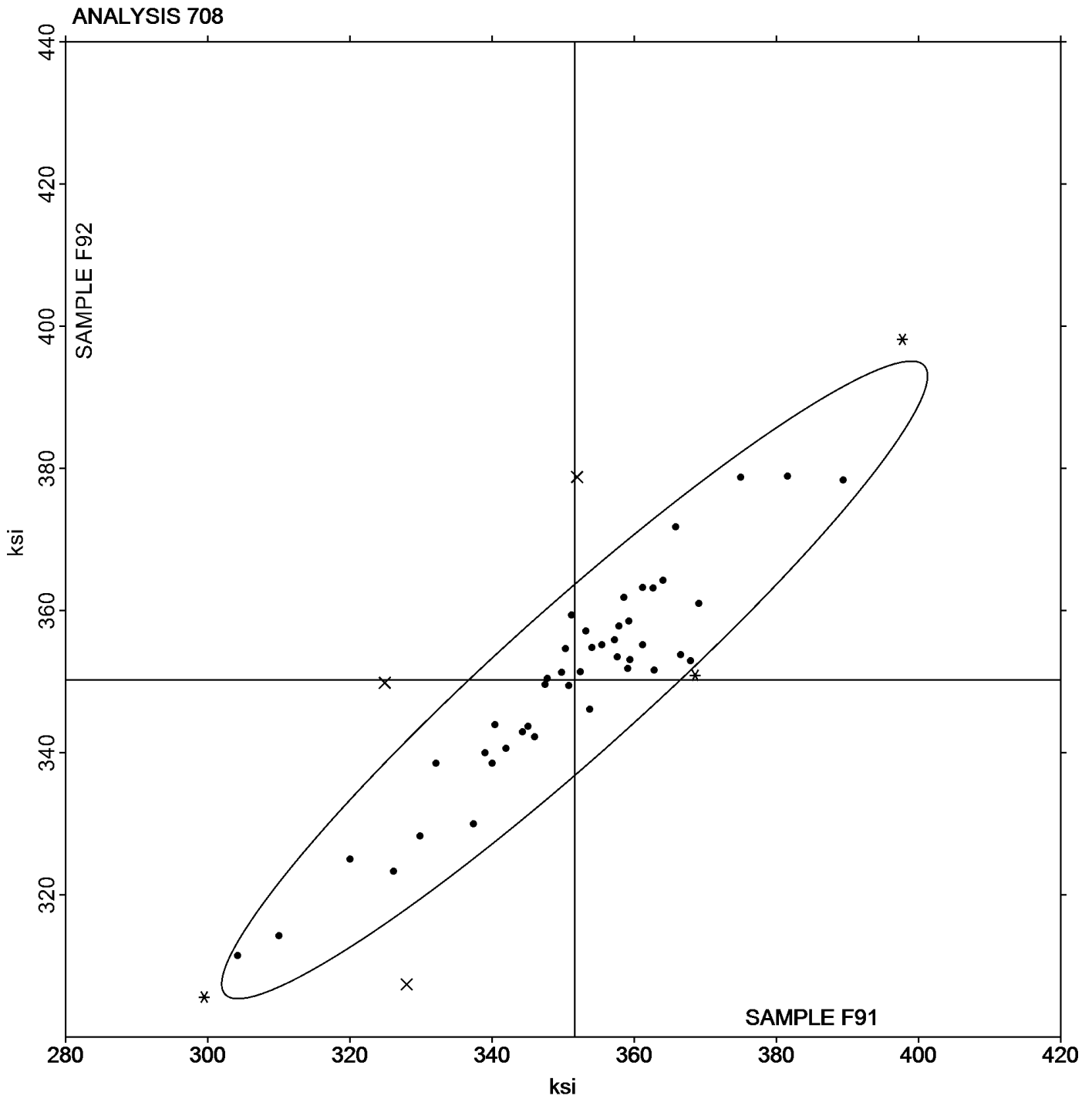
Report #126

Analysis 708

2nd Qtr 2023

Modulus of Elasticity - ksi

Grand Mean Sample F91: 351.61 ksi Grand Mean Sample F92: 350.23 ksi





Plastics Interlaboratory Testing Program

Report #126

Analysis 710

2nd Qtr 2023

Deflection Temp. Under Flexural Load (1.82 MPa) - Degrees C

WebCode	Data Flag	Sample E91			Sample E92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3EW7UK		104.00	-1.03	-0.38	102.93	-2.40	-0.87	TO
6AXQYU		107.33	2.29	0.85	107.88	2.55	0.92	ZW
7E7GXU		104.15	-0.88	-0.33	105.45	0.13	0.05	CF
7XHY9Z		102.20	-2.83	-1.05	103.23	-2.10	-0.76	IN
8JUV92	*	113.45	8.42	3.11	114.63	9.30	3.36	DN
9AL2PE		99.95	-5.08	-1.88	99.63	-5.70	-2.06	AT
AHD7QD		105.70	0.67	0.25	106.53	1.20	0.44	IN
B8PYJV		103.48	-1.56	-0.57	104.08	-1.25	-0.45	TO
B9Y7LN		106.20	1.17	0.43	105.90	0.58	0.21	IN
BETEHW		102.50	-2.53	-0.94	102.25	-3.07	-1.11	TO
CCWKTQ		103.60	-1.43	-0.53	105.10	-0.22	-0.08	IN
D846VQ		108.18	3.14	1.16	107.55	2.23	0.81	IN
E3MPHT		108.03	2.99	1.11	107.43	2.11	0.76	AT
EBV4UY		106.80	1.77	0.65	106.55	1.23	0.44	CE
GWUADA		106.28	1.24	0.46	107.28	1.95	0.71	XA
JNQ729		103.38	-1.66	-0.61	103.80	-1.52	-0.55	TY
JVM22T		104.95	-0.08	-0.03	105.58	0.25	0.09	TO
KF49H9		106.25	1.22	0.45	105.78	0.45	0.16	IN
KGNAX3	X	220.58	115.54	42.70	220.75	115.43	41.69	IN
L7KLE6		103.40	-1.63	-0.60	103.55	-1.77	-0.64	TY
PL4DUL		104.18	-0.86	-0.32	103.85	-1.47	-0.53	TO
PN6LWB		104.73	-0.31	-0.11	105.23	-0.10	-0.03	CE
QJTQXT		102.93	-2.11	-0.78	103.25	-2.07	-0.75	CE
RURKEH		106.38	1.34	0.50	106.33	1.00	0.36	XX
RX8LK3		106.25	1.22	0.45	106.45	1.13	0.41	IN
WVLMZT		101.53	-3.51	-1.30	102.83	-2.50	-0.90	TO

Summary Statistics		Sample E91	Sample E92
Grand Means		105.031 Degrees C	105.320 Degrees C
Std Dev Btwn Labs		2.706 Degrees C	2.769 Degrees C
Statistics based on 25 of 26 reporting participants			

Sample E91: ABS/PC & Sample E92: ABS/PC

Comments on Assigned Data Flags for Test #710

KGNA3 (X) - Extreme data.



Plastics Interlaboratory Testing Program

Report #126

Analysis 710

2nd Qtr 2023

Deflection Temp. Under Flexural Load (1.82 MPa) - Degrees C

Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CF	Coesfeld	DN	DYNISCO
IN	Instron	TO	Tinius Olsen
TY	Toyoseiki	XA	Special In-House Instrument
XX	Instrument manufacturer not specified by lab	ZW	Zwick



Plastics Interlaboratory Testing Program

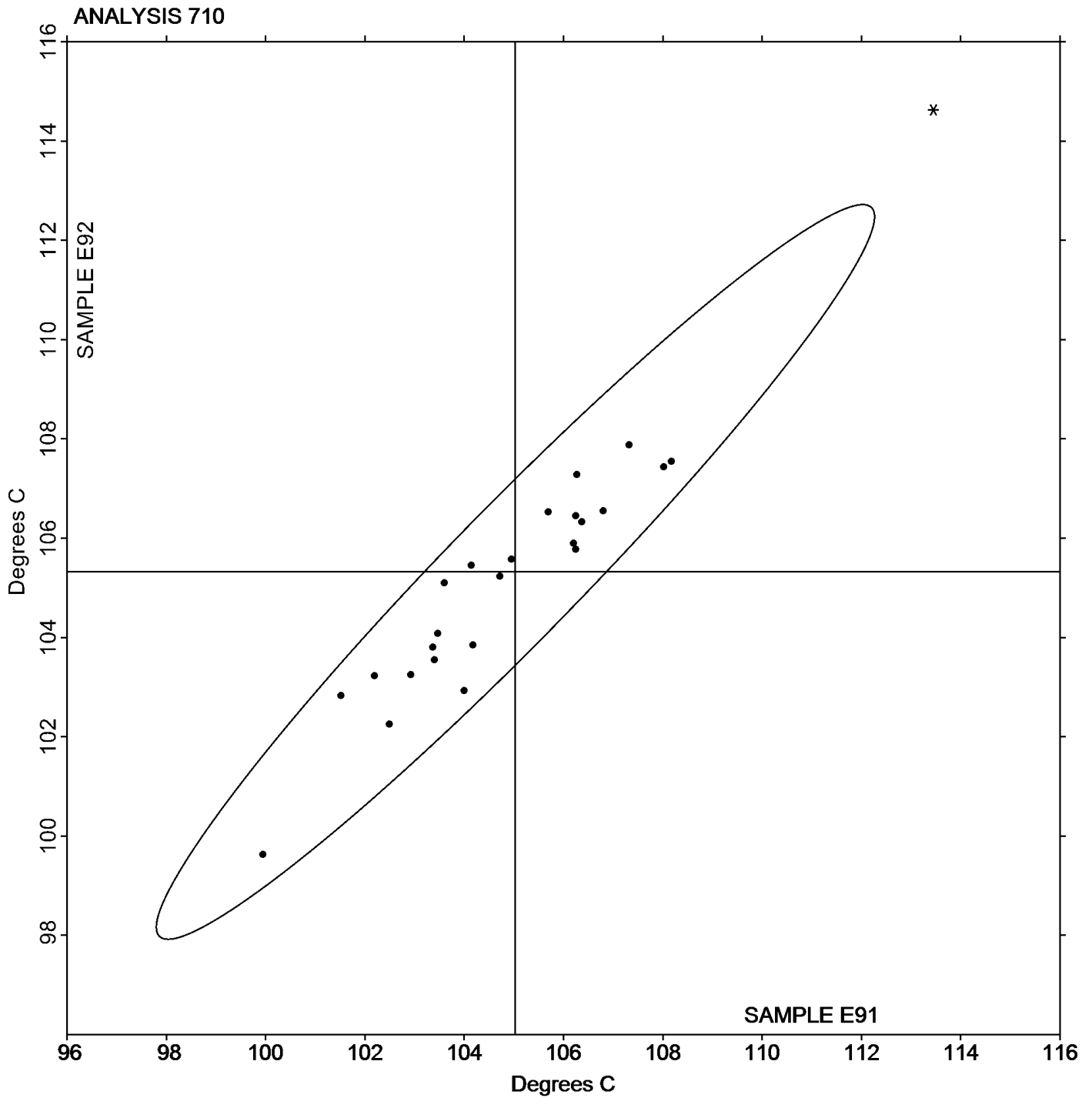
Report #126

Analysis 710

2nd Qtr 2023

Deflection Temp. Under Flexural Load (1.82 MPa) - Degrees C

Grand Mean Sample E91: 105.03 Degrees C Grand Mean Sample E92: 105.32 Degrees C





Plastics Interlaboratory Testing Program

Report #126

Analysis 711

2nd Qtr 2023

Deflection Temp. Under Flexural Load (0.455 MPa) - Degrees C

WebCode	Data Flag	Sample G91			Sample G92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3MRBML		111.3	-1.2	-0.24	110.0	-2.2	-0.35	XX
6AXQYU		108.4	-4.1	-0.79	108.5	-3.7	-0.59	IN
CCWKTQ		108.5	-4.0	-0.77	108.5	-3.6	-0.58	IN
E3MPTH		118.1	5.6	1.08	121.4	9.2	1.47	AT
EBV4UY		112.5	0.0	0.01	113.5	1.3	0.22	IN
HKQGHN		125.0	12.5	2.43	126.2	14.0	2.25	TO
QJTQXT		109.5	-3.0	-0.58	110.2	-1.9	-0.31	CE
UN8CYH		113.3	0.8	0.15	105.4	-6.8	-1.08	IN
WF6498		113.3	0.8	0.15	112.7	0.6	0.09	RR
WVLMZT		107.0	-5.5	-1.06	108.8	-3.4	-0.54	TO
ZGR8M4		110.5	-2.0	-0.38	108.5	-3.7	-0.59	XX

Summary Statistics		Sample G91	Sample G92
Grand Means		112.48 Degrees C	112.15 Degrees C
Stnd Dev Btwn Labs		5.15 Degrees C	6.24 Degrees C
Statistics based on 11 of 11 reporting participants			

Sample G91: PP & Sample G92: PP

Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
IN	Instron	RR	Ray-Ran
TO	Tinius Olsen	XX	Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

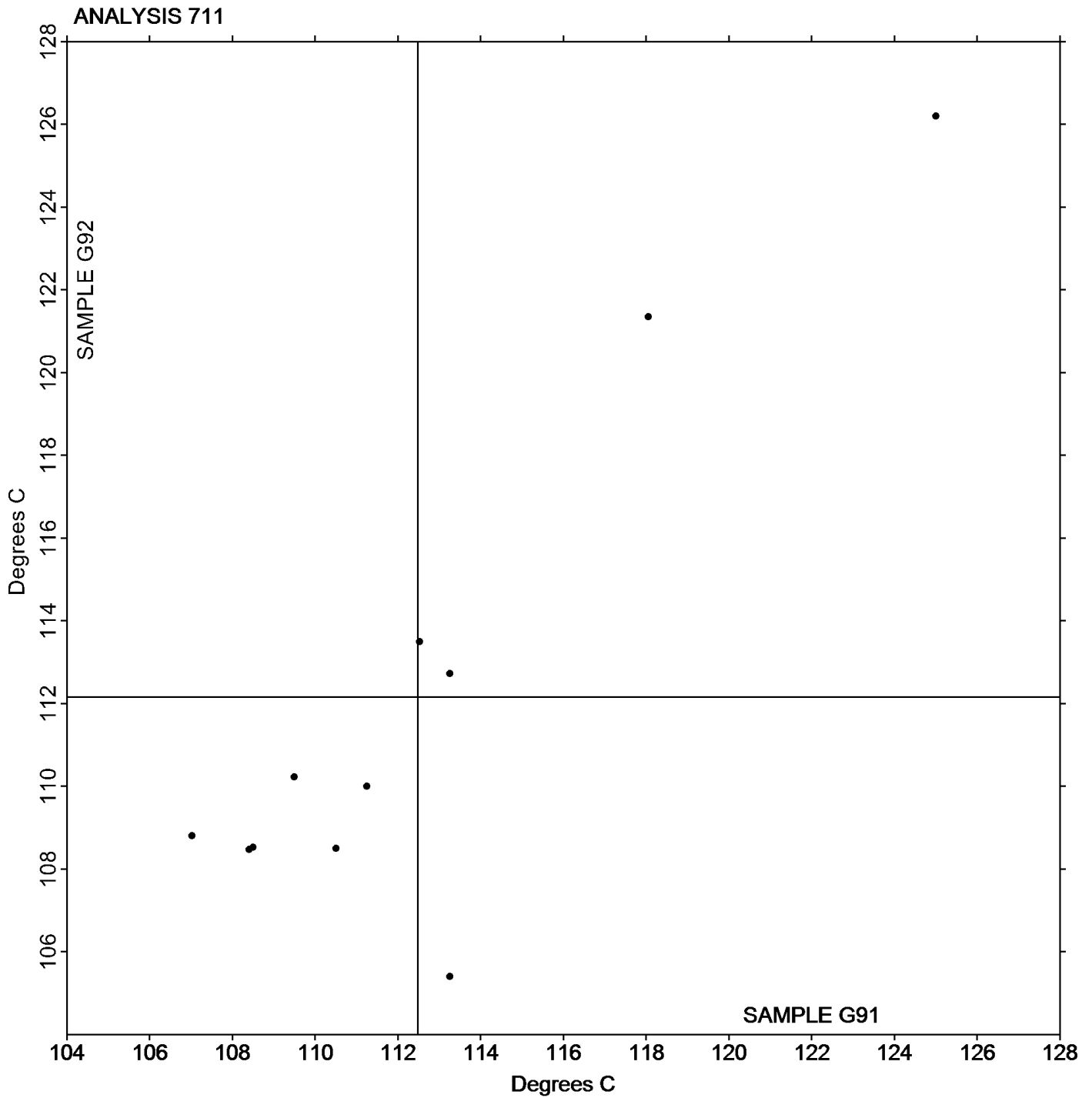
Report #126

Analysis 711

2nd Qtr 2023

Deflection Temp. Under Flexural Load (0.455 MPa) - Degrees C

Grand Mean Sample G91: 112.48 Degrees C Grand Mean Sample G92: 112.15 Degrees C



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 712

2nd Qtr 2023

Temp. of Deflection Under Flexural Load (1.80 MPa) - Degrees C

WebCode	Data Flag	Sample N91			Sample N92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3MRBML		104.48	-0.16	-0.11	103.35	-1.07	-0.72	XX
6AXQYU		104.45	-0.19	-0.12	104.35	-0.07	-0.04	ZW
7E7GXU		104.35	-0.29	-0.19	104.15	-0.27	-0.18	CF
7FQUE7		105.98	1.34	0.90	105.18	0.76	0.51	XX
7HLF3V		104.15	-0.49	-0.33	104.17	-0.25	-0.17	XX
8WA873		107.50	2.86	1.93	106.93	2.52	1.70	CE
9263MG	X	113.20	8.56	5.77	113.30	8.88	6.01	XX
A96CUZ		101.00	-3.64	-2.45	101.00	-3.42	-2.31	TO
AHD7QD		105.03	0.39	0.26	105.03	0.61	0.41	IN
ANJUB8		103.75	-0.89	-0.60	103.25	-1.17	-0.79	TO
BVGP4Y		104.50	-0.14	-0.09	103.90	-0.52	-0.35	CE
CCWKTQ		102.73	-1.91	-1.29	103.08	-1.34	-0.91	IN
D3HJPW		102.25	-2.39	-1.61	102.18	-2.24	-1.52	CE
E3MPTH		105.58	0.94	0.63	106.35	1.93	1.31	AT
E99APQ		104.47	-0.17	-0.11	103.13	-1.28	-0.87	CE
EBV4UY		105.58	0.94	0.63	106.10	1.68	1.14	IN
JNQ729		105.85	1.21	0.82	105.15	0.73	0.50	TY
JNQJUQ		104.00	-0.64	-0.43	104.00	-0.42	-0.28	TO
JZJPFE		105.50	0.86	0.58	105.25	0.83	0.57	IN
KF49H9		106.68	2.04	1.37	106.80	2.38	1.61	IN
KGNAX3		104.50	-0.14	-0.09	103.18	-1.24	-0.84	IN
KJRDYK		103.43	-1.20	-0.81	103.37	-1.05	-0.71	CE
L7KLE6		105.80	1.16	0.78	105.68	1.26	0.85	TY
LKG789		104.43	-0.21	-0.14	104.10	-0.32	-0.21	TY
M6K3RU		104.80	0.16	0.11	104.88	0.46	0.31	TO
M8LH8R	X	113.13	8.49	5.72	117.15	12.73	8.62	CE
MZBP9A		105.73	1.09	0.73	105.20	0.78	0.53	IN
PHF73X		102.23	-2.41	-1.62	101.75	-2.67	-1.80	CE
PN6LWB		106.55	1.91	1.29	105.83	1.41	0.95	CE
PPGETY		104.00	-0.64	-0.43	104.75	0.33	0.23	TO
QJTQXT		101.55	-3.09	-2.08	101.20	-3.22	-2.18	CE
RKFWKX		103.10	-1.54	-1.03	103.08	-1.34	-0.91	CE
RURKEH		106.90	2.26	1.52	106.25	1.83	1.24	XX
UL3CRB		104.83	0.19	0.13	104.63	0.21	0.14	IN
VLZYME		103.13	-1.51	-1.02	103.75	-0.67	-0.45	TO



Plastics Interlaboratory Testing Program

Report #126

Analysis 712

2nd Qtr 2023

Temp. of Deflection Under Flexural Load (1.80 MPa) - Degrees C

WebCode	Data Flag	Sample N91			Sample N92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
VY7XWL		105.65	1.01	0.68	105.60	1.18	0.80	IN
WTVUCK		105.63	0.99	0.67	105.08	0.66	0.45	XX
XKGU7T		105.20	0.56	0.38	105.53	1.11	0.75	TO
YZTVD3		104.43	-0.21	-0.14	104.38	-0.04	-0.03	TO
ZGR8M4		106.50	1.86	1.26	106.25	1.83	1.24	XX

Summary Statistics		
	Sample N91	Sample N92
Grand Means	104.635 Degrees C	104.415 Degrees C
Stnd Dev Btwn Labs	1.485 Degrees C	1.477 Degrees C
Statistics based on 38 of 40 reporting participants		

Sample N91: ABS/PC & Sample N92: ABS/PC

Comments on Assigned Data Flags for Test #712

M8LH8R (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

9263MG (X) - Data for both samples are high. Possible Systematic Error.

Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CF	Coesfeld	IN	Instron
TO	Tinius Olsen	TY	Toyoseiki
XX	Instrument manufacturer not specified by lab	ZW	Zwick



Plastics Interlaboratory Testing Program

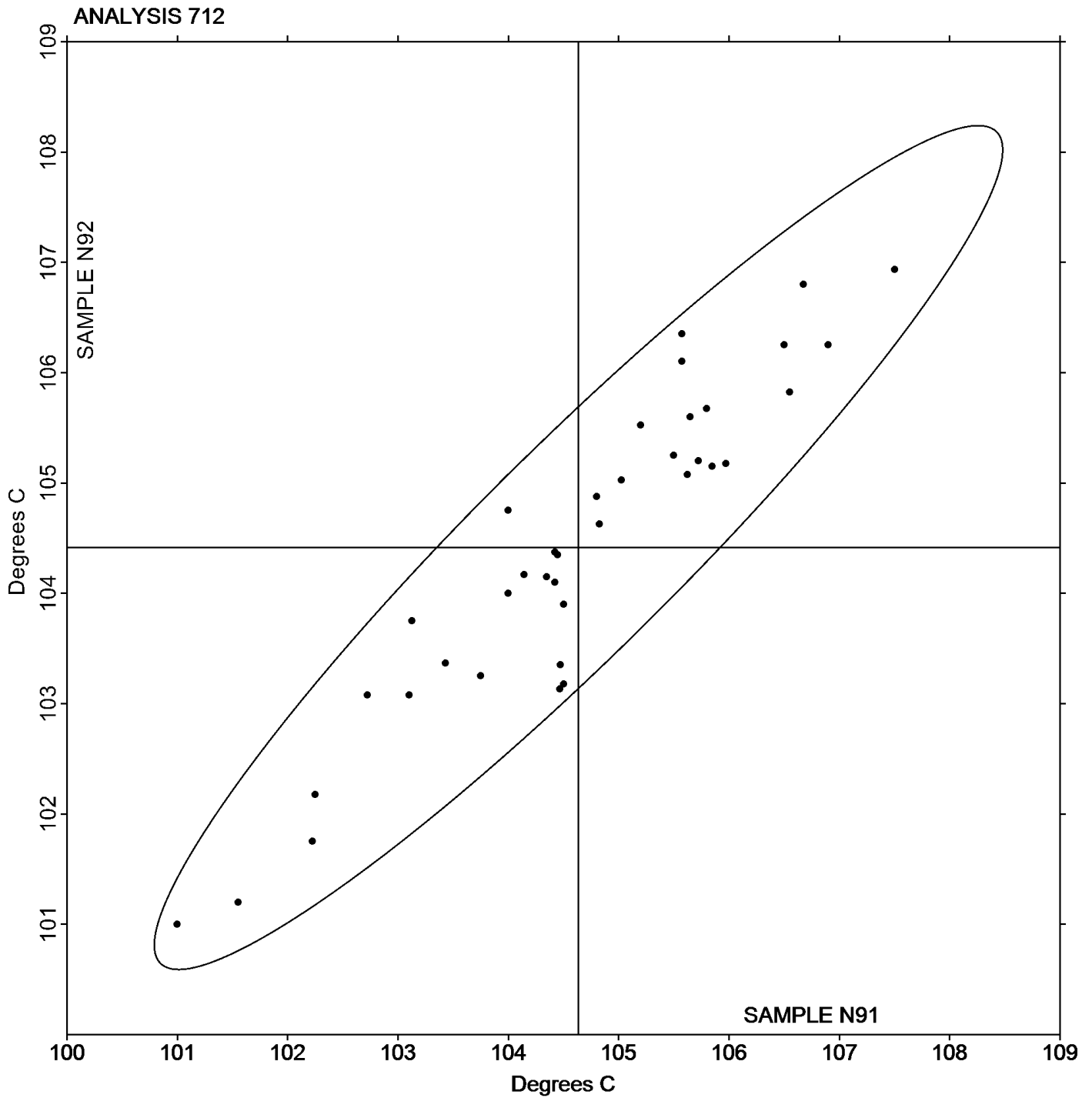
Report #126

Analysis 712

2nd Qtr 2023

Temp. of Deflection Under Flexural Load (1.80 MPa) - Degrees C

Grand Mean Sample N91: 104.64 Degrees C Grand Mean Sample N92: 104.42 Degrees C





Plastics Interlaboratory Testing Program

Report #126

Analysis 715

2nd Qtr 2023

Vicat Softening Temperature (Rate A)

WebCode	Data Flag	Sample H91			Sample H92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6AXQYU		104.40	1.36	1.27	104.45	1.38	1.27	CF
7E7GXU		104.00	0.96	0.89	104.07	1.00	0.92	CF
9AL2PE		102.57	-0.47	-0.44	102.45	-0.62	-0.57	AT
AHD7QD		103.47	0.43	0.40	103.43	0.37	0.34	IN
AQ7LRY		102.91	-0.12	-0.12	102.90	-0.17	-0.15	CE
AVH3AF		102.62	-0.42	-0.39	102.70	-0.37	-0.34	IN
B8PYJV	*	99.78	-3.25	-3.03	99.83	-3.23	-2.98	TO
BETEHW		103.00	-0.04	-0.04	103.00	-0.07	-0.06	TO
BVGP4Y		103.62	0.58	0.54	103.68	0.62	0.57	CE
CCWKTQ		102.95	-0.09	-0.08	103.13	0.07	0.06	TO
E3MPTH		103.05	0.01	0.01	103.10	0.03	0.03	AT
F2LEBK		100.55	-2.49	-2.31	100.53	-2.53	-2.33	CE
GCKCRT		103.72	0.68	0.63	103.82	0.75	0.69	CE
JNQ729		102.88	-0.15	-0.14	102.85	-0.22	-0.20	CF
KF49H9	X	104.62	1.58	1.47	103.80	0.73	0.68	IN
MZBP9A		103.13	0.10	0.09	103.10	0.03	0.03	IN
PHF73X		104.15	1.11	1.03	104.07	1.00	0.92	CE
PN6LWB		104.02	0.98	0.91	104.12	1.05	0.97	CE
QJTQXT		103.10	0.06	0.06	103.18	0.12	0.11	CE
RKFWKX		104.38	1.35	1.25	104.48	1.42	1.30	CF
RURKEH		102.40	-0.64	-0.59	102.50	-0.57	-0.52	XX
RX8LK3		103.23	0.20	0.18	103.22	0.15	0.14	IN
UZ4Y4X		102.93	-0.10	-0.10	102.92	-0.15	-0.14	XX
YZTVD3		103.02	-0.02	-0.02	103.00	-0.07	-0.06	TO

Summary Statistics		
	Sample H91	Sample H92
Grand Means	103.038 Degrees C	103.067 Degrees C
Std Dev Btwn Labs	1.076 Degrees C	1.086 Degrees C
Statistics based on 23 of 24 reporting participants		

Sample H91: ABS & Sample H92: ABS

Comments on Assigned Data Flags for Test #715

KF49H9 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample H92.



Plastics Interlaboratory Testing Program

Report #126

Analysis 715

2nd Qtr 2023

Vicat Softening Temperature (Rate A)

Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CF	Coesfeld	IN	Instron
TO	Tinius Olsen	XX	Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

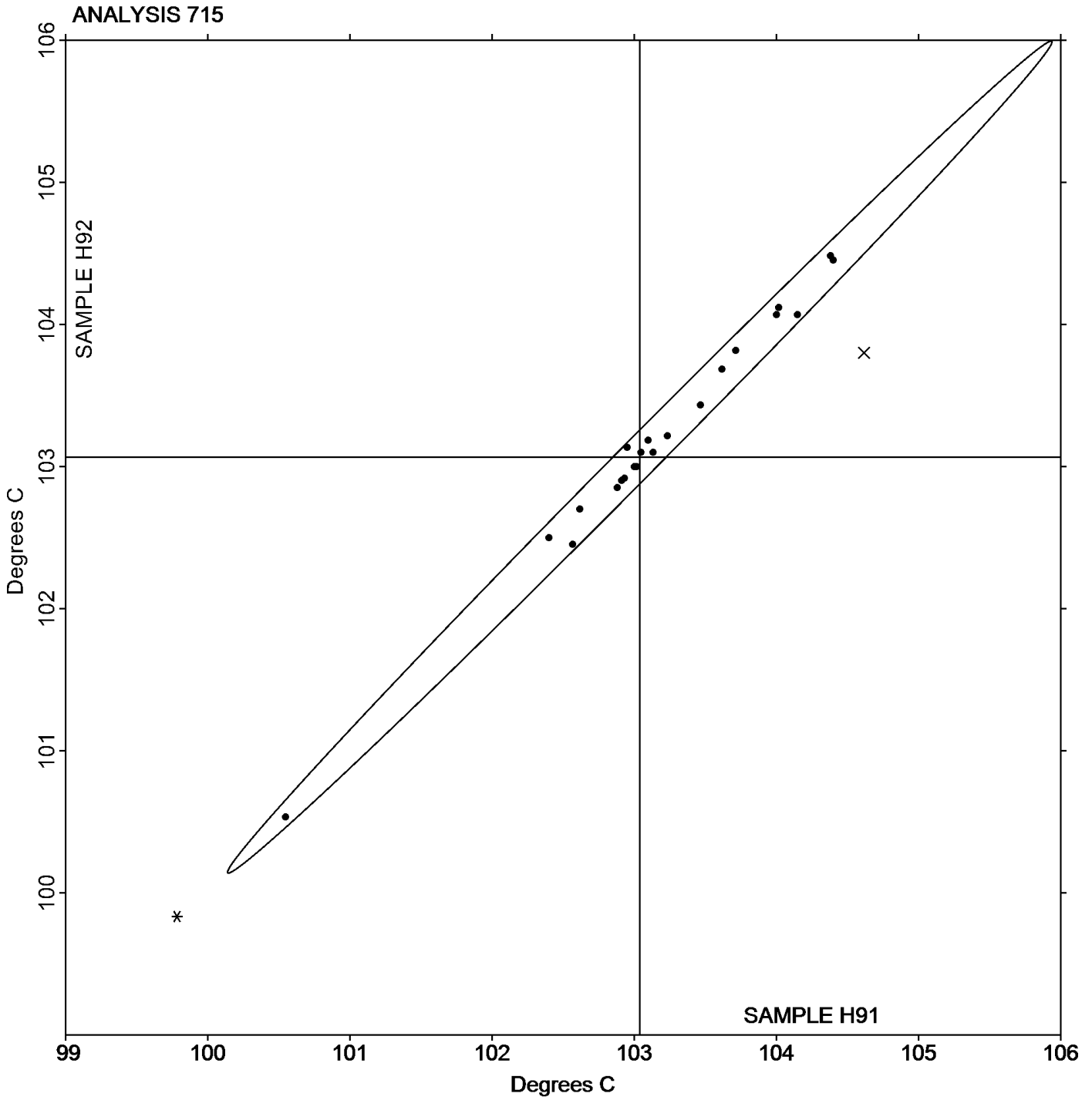
Analysis 715

Vicat Softening Temperature (Rate A)

Report #126

2nd Qtr 2023

Grand Mean Sample H91: 103.04 Degrees C Grand Mean Sample H92: 103.07 Degrees C





Plastics Interlaboratory Testing Program

Report #126

Analysis 716

2nd Qtr 2023

Vicat Softening Temperature (Rate B)

WebCode	Data Flag	Sample R91			Sample R92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6AXQYU		105.47	0.47	0.31	105.70	0.78	0.49	CF
7E7GXU		106.30	1.30	0.87	106.40	1.48	0.93	CF
9AL2PE		104.63	-0.36	-0.24	104.57	-0.35	-0.22	AT
A96CUZ	*	103.00	-2.00	-1.33	102.00	-2.92	-1.82	TO
AHD7QD		105.13	0.14	0.09	105.00	0.08	0.05	IN
AQ7LRY		104.42	-0.58	-0.38	104.62	-0.30	-0.19	CE
AVH3AF		104.72	-0.28	-0.19	104.42	-0.50	-0.31	IN
B8PYJV		102.22	-2.78	-1.85	102.15	-2.77	-1.73	TO
BETEHW		104.67	-0.33	-0.22	104.67	-0.25	-0.16	TO
BVGP4Y		105.15	0.15	0.10	105.08	0.17	0.10	CE
CCWKTQ		104.45	-0.55	-0.36	104.62	-0.30	-0.19	TO
E3MPTH		105.33	0.34	0.22	105.38	0.47	0.29	AT
F2LEBK	*	100.67	-4.33	-2.89	100.68	-4.23	-2.64	CE
JNQ729		105.20	0.20	0.13	105.20	0.28	0.18	CF
KF49H9		106.47	1.47	0.98	106.48	1.57	0.98	IN
MZBP9A		105.38	0.39	0.26	105.32	0.40	0.25	IN
PHF73X		106.55	1.55	1.03	106.62	1.70	1.06	CE
PN6LWB		106.02	1.02	0.68	106.07	1.15	0.72	CE
RKFWKX		105.30	0.30	0.20	105.62	0.70	0.44	CF
RURKEH	*	104.45	-0.55	-0.36	103.52	-1.40	-0.87	XX
RX8LK3		105.45	0.45	0.30	105.42	0.50	0.31	IN
T2YAEF		108.42	3.42	2.28	108.33	3.42	2.13	CE
UMH29P		105.48	0.49	0.32	105.12	0.20	0.13	CS
YZTVD3		105.07	0.07	0.05	105.00	0.08	0.05	TO

Summary Statistics		
	Sample R91	Sample R92
Grand Means	104.997 Degrees C	104.915 Degrees C
Std Dev Btwn Labs	1.501 Degrees C	1.603 Degrees C
Statistics based on 24 of 24 reporting participants		

Sample R91: ABS & Sample R92: ABS



Plastics Interlaboratory Testing Program

Report #126

Analysis 716

2nd Qtr 2023

Vicat Softening Temperature (Rate B)

Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CF	Coesfeld	CS	CSI
IN	Instron	TO	Tinius Olsen
XX	Instrument manufacturer not specified by lab		



Plastics Interlaboratory Testing Program

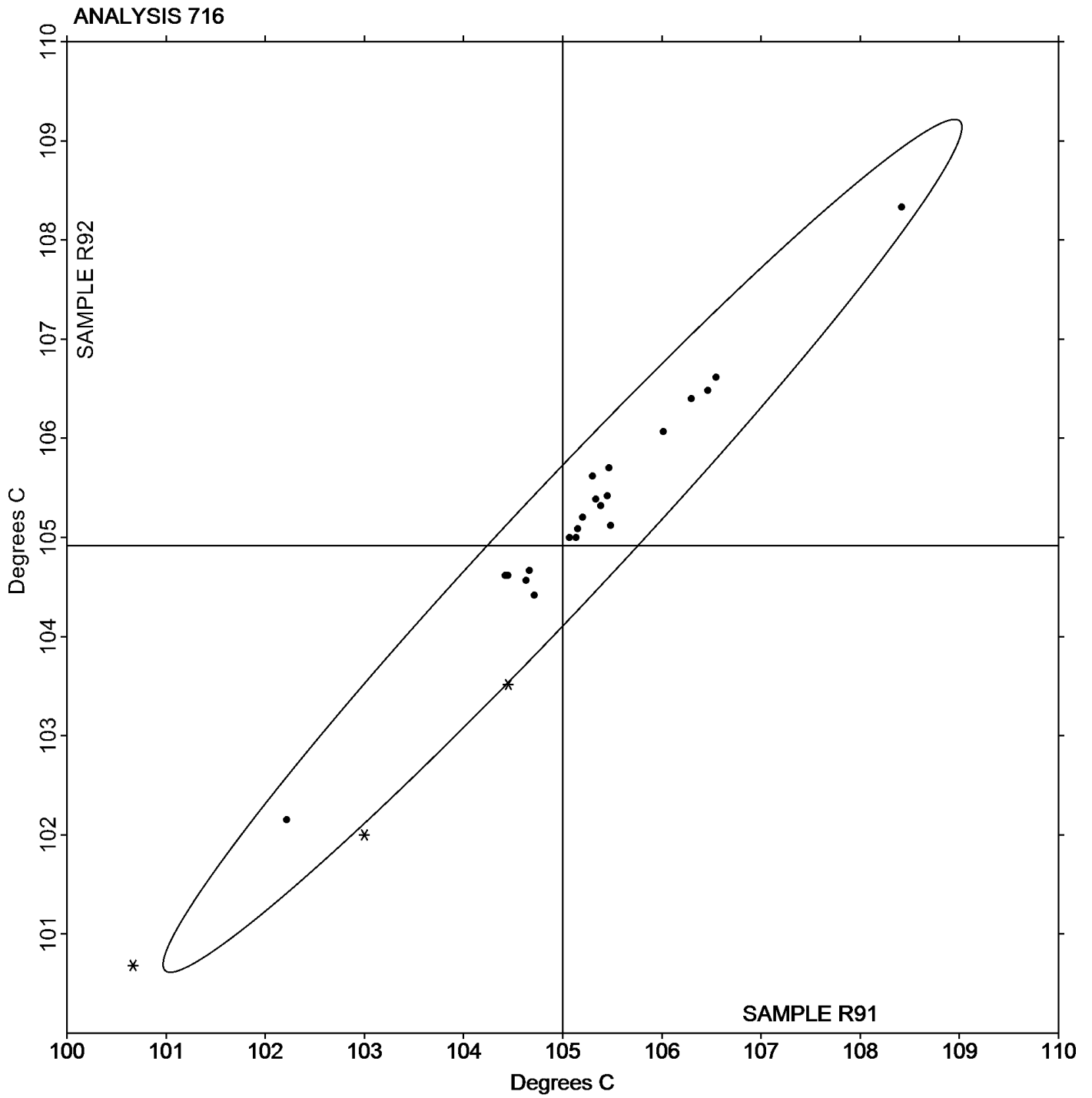
Analysis 716

Vicat Softening Temperature (Rate B)

Report #126

2nd Qtr 2023

Grand Mean Sample R91: 105.00 Degrees C Grand Mean Sample R92: 104.92 Degrees C





Plastics Interlaboratory Testing Program

Report #126

Analysis 718

2nd Qtr 2023

Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T91			Sample T92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2KZLFG		1.02867	-0.00097	-0.49	1.02967	-0.00011	-0.06
3AWRFP		1.02567	-0.00397	-2.01	1.02633	-0.00344	-1.82
3K363P		1.03167	0.00203	1.02	1.03100	0.00123	0.65
3MRBML		1.02967	0.00003	0.01	1.03100	0.00123	0.65
48X2HV		1.03177	0.00213	1.07	1.03080	0.00103	0.54
4CP93P		1.02867	-0.00097	-0.49	1.02867	-0.00111	-0.59
6AXQYU		1.03110	0.00146	0.74	1.03110	0.00133	0.70
6GE8R4		1.02750	-0.00214	-1.08	1.02883	-0.00094	-0.50
7E7GXU		1.02500	-0.00464	-2.34	1.02600	-0.00377	-2.00
7HLF3V		1.02733	-0.00231	-1.16	1.02767	-0.00211	-1.12
7VU2PU		1.03210	0.00246	1.24	1.03220	0.00243	1.29
7XHY9Z	X	1.03707	0.00743	3.75	1.03653	0.00676	3.58
8CADNJ		1.03123	0.00159	0.80	1.03179	0.00202	1.07
8JUV92	X	1.02900	-0.00064	-0.32	1.03300	0.00323	1.71
8N468X		1.02923	-0.00041	-0.21	1.02920	-0.00057	-0.30
8NAG29		1.02931	-0.00033	-0.17	1.02955	-0.00023	-0.12
8NLPW8		1.03000	0.00036	0.18	1.03000	0.00023	0.12
8WA873		1.02700	-0.00264	-1.33	1.02733	-0.00244	-1.29
8ZM47K		1.03193	0.00229	1.16	1.03197	0.00219	1.16
9263MG	X	1.02353	-0.00611	-3.08	1.02297	-0.00681	-3.61
9A6GRG		1.02980	0.00016	0.08	1.03037	0.00059	0.31
9AL2PE		1.03197	0.00233	1.17	1.03193	0.00216	1.14
A8UMBN		1.03150	0.00186	0.94	1.03070	0.00093	0.49
ANJUB8		1.02833	-0.00131	-0.66	1.02900	-0.00077	-0.41
AYYUEB		1.03167	0.00203	1.02	1.03133	0.00156	0.83
B9Y7LN	X	1.02487	-0.00477	-2.41	1.02090	-0.00887	-4.70
BVGP4Y		1.02800	-0.00164	-0.83	1.02717	-0.00261	-1.38
CCWKTQ		1.02883	-0.00081	-0.41	1.02887	-0.00091	-0.48
D4Y89H		1.03057	0.00093	0.47	1.03030	0.00053	0.28
D846VQ		1.03023	0.00059	0.30	1.02947	-0.00031	-0.16
D9DPQY		1.03193	0.00229	1.16	1.03107	0.00129	0.69
DC7JYE		1.03030	0.00066	0.33	1.02973	-0.00004	-0.02
DVPM87		1.02867	-0.00097	-0.49	1.02833	-0.00144	-0.76
E3MPTH		1.02997	0.00033	0.16	1.02937	-0.00041	-0.21
E99APQ		1.02940	-0.00024	-0.12	1.03167	0.00189	1.00



Plastics Interlaboratory Testing Program

Report #126

Analysis 718

2nd Qtr 2023

Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T91			Sample T92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
EBV4UY		1.02853	-0.00111	-0.56	1.02780	-0.00197	-1.05
EU9QF8		1.03300	0.00336	1.70	1.03310	0.00333	1.76
EW42E		1.02933	-0.00031	-0.15	1.03067	0.00089	0.47
GWUADA		1.02933	-0.00031	-0.15	1.02970	-0.00007	-0.04
HKQGHN		1.03190	0.00226	1.14	1.03293	0.00316	1.67
JJVBJA		1.03050	0.00086	0.43	1.03080	0.00103	0.54
JNQ729		1.03100	0.00136	0.69	1.03000	0.00023	0.12
JVM22T		1.03247	0.00283	1.43	1.03213	0.00236	1.25
JZJPFE	*	1.02963	-0.00001	0.00	1.02727	-0.00251	-1.33
K9NMT4		1.03013	0.00049	0.25	1.03110	0.00133	0.70
KF49H9		1.02867	-0.00097	-0.49	1.03003	0.00026	0.14
KGNA3	X	1.04000	0.01036	5.23	1.03000	0.00023	0.12
KJRDK		1.03060	0.00096	0.48	1.02910	-0.00067	-0.36
LDJ7JL		1.02533	-0.00431	-2.17	1.02570	-0.00407	-2.16
LK2GQU		1.03103	0.00139	0.70	1.02913	-0.00064	-0.34
M96V2B		1.02907	-0.00057	-0.29	1.02917	-0.00061	-0.32
MAEXRF	X	1.02497	-0.00467	-2.36	1.02817	-0.00161	-0.85
MM3WK4		1.02980	0.00016	0.08	1.03083	0.00106	0.56
MZBP9A		1.03229	0.00265	1.34	1.03160	0.00183	0.97
N6GAH8		1.02933	-0.00031	-0.15	1.03063	0.00086	0.46
NL6K6A		1.02900	-0.00064	-0.32	1.02900	-0.00077	-0.41
NLMZNX	X	1.71733	0.68769	347.06	1.65767	0.62789	332.70
PCGDFX		1.02880	-0.00084	-0.42	1.02850	-0.00127	-0.67
PHF73X		1.02700	-0.00264	-1.33	1.02833	-0.00144	-0.76
PL4DUL		1.02867	-0.00097	-0.49	1.02833	-0.00144	-0.76
PN6LWB		1.03000	0.00036	0.18	1.03000	0.00023	0.12
Q2AZUN		1.03013	0.00049	0.25	1.03083	0.00106	0.56
QJTQXT		1.03033	0.00069	0.35	1.03133	0.00156	0.83
QMTTAV		1.02873	-0.00091	-0.46	1.03057	0.00079	0.42
QURVGT		1.03000	0.00036	0.18	1.03010	0.00033	0.17
RQHTNN		1.02923	-0.00041	-0.21	1.03050	0.00073	0.39
RURKEH		1.03233	0.00269	1.36	1.03067	0.00089	0.47
T2YAEF		1.03037	0.00073	0.37	1.03117	0.00139	0.74
T7MHFF		1.02920	-0.00044	-0.22	1.02917	-0.00061	-0.32
U3QP63	*	1.02403	-0.00561	-2.83	1.02540	-0.00437	-2.32



Plastics Interlaboratory Testing Program

Report #126

Analysis 718

2nd Qtr 2023

Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T91			Sample T92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
UCCQLC		1.03067	0.00103	0.52	1.03067	0.00089	0.47
UJG3Q6		1.03140	0.00176	0.89	1.03233	0.00256	1.36
UL3CRB		1.03183	0.00219	1.11	1.03147	0.00169	0.90
ULMH43		1.02800	-0.00164	-0.83	1.02833	-0.00144	-0.76
VLZYME	*	1.02880	-0.00084	-0.42	1.03157	0.00179	0.95
VP2GTG	M	1.03303	0.00339	1.71	No data reported for this sample		
VY7XWL	*	1.02417	-0.00547	-2.76	1.02427	-0.00551	-2.92
WVLMZT		1.03003	0.00039	0.20	1.02983	0.00006	0.03
WVLZN4	*	1.02633	-0.00331	-1.67	1.02533	-0.00444	-2.35
XJGA72		1.03087	0.00123	0.62	1.03020	0.00043	0.23
XVZBT8		1.03153	0.00189	0.96	1.03153	0.00176	0.93
XZRE3Y		1.03290	0.00326	1.65	1.03200	0.00223	1.18
YGWATB		1.02620	-0.00344	-1.74	1.02593	-0.00384	-2.03
YZTVD3		1.03077	0.00113	0.57	1.03033	0.00056	0.30
ZGR8M4		1.03000	0.00036	0.18	1.03067	0.00089	0.47

Summary Statistics		Sample T91	Sample T92
Grand Means		1.029640 sp gr 23/23 C	1.029772 sp gr 23/23 C
Stnd Dev Btwn Labs		0.001981 sp gr 23/23 C	0.001887 sp gr 23/23 C
Statistics based on 77 of 85 reporting participants			

Sample T91: ABS & Sample T92: ABS

Comments on Assigned Data Flags for Test #718

- MAEXRF (X) - Inconsistent in testing between samples.
- 7XHY9Z (X) - Data for both samples are high. Possible Systematic Error.
- KGNA3 (X) - Data for sample T91 are high. Inconsistent within the determinations of sample T91.
- NLMZNX (X) - Extreme data.
- B9Y7LN (X) - Data for sample T92 are low.
- 8JUV92 (X) - Inconsistent in testing between samples.
- VP2GTG (M) - Participant did not submit data for sample T92.
- 9263MG (X) - Data for both samples are low. Possible Systematic Error.



Plastics Interlaboratory Testing Program

Report #126

Analysis 718

2nd Qtr 2023

Specific Gravity - sp gr 23/23 C

Results by Methodology (as reported by laboratory)

Test Methodology	Sample T91 <i>ABS</i>			Sample T92 <i>ABS</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
ASTM D792 Method A (water)	1.029934	0.001754	0.000	1.030062	0.001652	0.000	59/65
ASTM D792 Method B (not water)	1.028500	0.000707	-0.001	1.028083	0.001296	-0.002	2/3
ISO 1183	1.029130	0.002343	-0.001	1.029255	0.002365	-0.001	14/15



Plastics Interlaboratory Testing Program

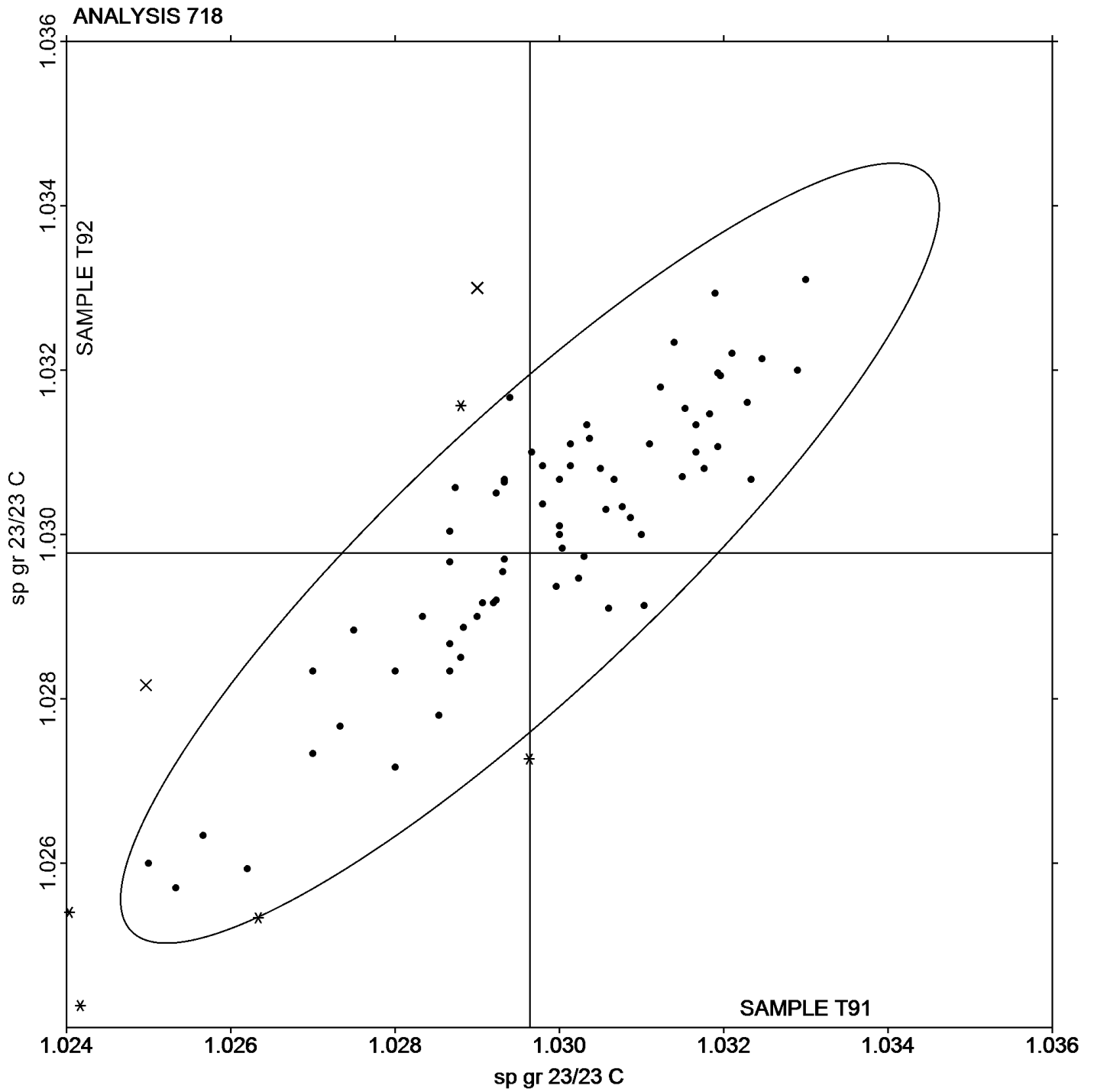
Analysis 718

Specific Gravity - sp gr 23/23 C

Report #126

2nd Qtr 2023

Grand Mean Sample T91: 1.0296 sp gr 23/23 C Grand Mean Sample T92: 1.0298 sp gr 23/23 C





Plastics Interlaboratory Testing Program

Report #126

Analysis 720

2nd Qtr 2023

Flexural Modulus- ksi

WebCode	Data Flag	Sample J91			Sample J92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
3K363P		340.3	-1.2	-0.08	340.2	-3.4	-0.21
3MRBML		344.3	2.8	0.19	346.6	3.1	0.20
3VXQ3N	X	316.6	-25.0	-1.68	302.3	-41.3	-2.64
6AXQYU		352.7	11.2	0.75	356.8	13.2	0.84
7E7GXU		314.0	-27.6	-1.85	315.0	-28.6	-1.83
7NKY88		347.0	5.5	0.37	345.6	2.0	0.13
7XHY9Z	X	321.5	-20.0	-1.34	309.7	-33.9	-2.17
8JUV92	X	265.4	-76.2	-5.11	271.0	-72.6	-4.64
92PZWL		332.0	-9.6	-0.64	334.1	-9.4	-0.60
AHD7QD		342.0	0.5	0.03	340.3	-3.2	-0.21
B9Y7LN		329.6	-12.0	-0.80	330.3	-13.3	-0.85
BETEHW	X	415.8	74.2	4.98	427.0	83.4	5.33
BW7KJY		354.1	12.6	0.84	348.4	4.9	0.31
CCWKTQ		365.6	24.1	1.61	365.9	22.4	1.43
D846VQ		335.4	-6.1	-0.41	336.2	-7.4	-0.47
D9DPQY		340.4	-1.2	-0.08	345.4	1.8	0.12
DYQNAP		346.8	5.2	0.35	348.2	4.6	0.29
E3MPTH		335.1	-6.4	-0.43	335.6	-7.9	-0.51
EBV4UY		362.2	20.7	1.39	365.5	21.9	1.40
EHHL3N		320.6	-20.9	-1.40	324.5	-19.1	-1.22
GKV9LL		351.9	10.3	0.69	351.5	7.9	0.51
GWUADA		363.4	21.8	1.47	362.8	19.2	1.23
HKQGHN		337.1	-4.5	-0.30	344.9	1.3	0.08
JMMA9J		338.9	-2.6	-0.18	336.0	-7.6	-0.48
JNQ729		322.0	-19.6	-1.32	323.8	-19.8	-1.27
JVM22T		344.3	2.8	0.19	348.0	4.4	0.28
KF49H9		332.0	-9.5	-0.64	334.1	-9.5	-0.61
KGNA3		346.0	4.5	0.30	346.3	2.7	0.17
KHXR49		337.9	-3.7	-0.25	341.2	-2.4	-0.15
KR9LB2		348.4	6.8	0.46	343.5	0.0	0.00
KWEE4B	X	833.6	492.0	33.03	318.7	-24.9	-1.59
LDJ7JL	*	371.1	29.5	1.98	379.7	36.1	2.31
LK2GQU		329.2	-12.4	-0.83	331.2	-12.3	-0.79
MVXZNZ		372.7	31.2	2.09	379.1	35.6	2.27
N6GAH8		317.4	-24.2	-1.62	319.0	-24.6	-1.57



Plastics Interlaboratory Testing Program

Report #126

Analysis 720

2nd Qtr 2023

Flexural Modulus- ksi

WebCode	Data Flag	Sample J91			Sample J92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
N6ZLA7		320.0	-21.6	-1.45	322.2	-21.4	-1.37
PHF73X		308.2	-33.4	-2.24	309.2	-34.4	-2.20
PL4DUL		352.6	11.0	0.74	356.9	13.3	0.85
PN6LWB		342.5	1.0	0.06	346.5	2.9	0.19
RURKEH		356.6	15.0	1.01	358.6	15.0	0.96
RX8LK3		342.0	0.4	0.03	342.8	-0.8	-0.05
TQGM9K		342.0	0.4	0.03	347.8	4.2	0.27
UCCQLC		337.6	-4.0	-0.27	342.6	-1.0	-0.06
VE3PLB		342.3	0.7	0.05	348.4	4.8	0.31
WF6498		351.6	10.0	0.67	359.0	15.4	0.98
WVLMZT		356.1	14.5	0.97	353.3	9.7	0.62
WZB8Y3		317.9	-23.7	-1.59	313.9	-29.6	-1.89
ZBJHRW		349.4	7.8	0.53	353.6	10.0	0.64
ZGR8M4		335.0	-6.5	-0.44	342.9	-0.7	-0.05

Summary Statistics

	Sample J91	Sample J92
Grand Means	341.55 ksi	343.58 ksi
Stnd Dev Btwn Labs	14.90 ksi	15.66 ksi

Statistics based on 44 of 49 reporting participants

Sample J91: ABS/PC & Sample J92: ABS/PC

Comments on Assigned Data Flags for Test #720

- BETEHW (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample J91.
- 7XHY9Z (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- KWEE4B (X) - Data for sample J91 are high. Inconsistent within the determinations of sample J91.
- 8JUV92 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample J91.
- 3VXQ3N (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample J92.

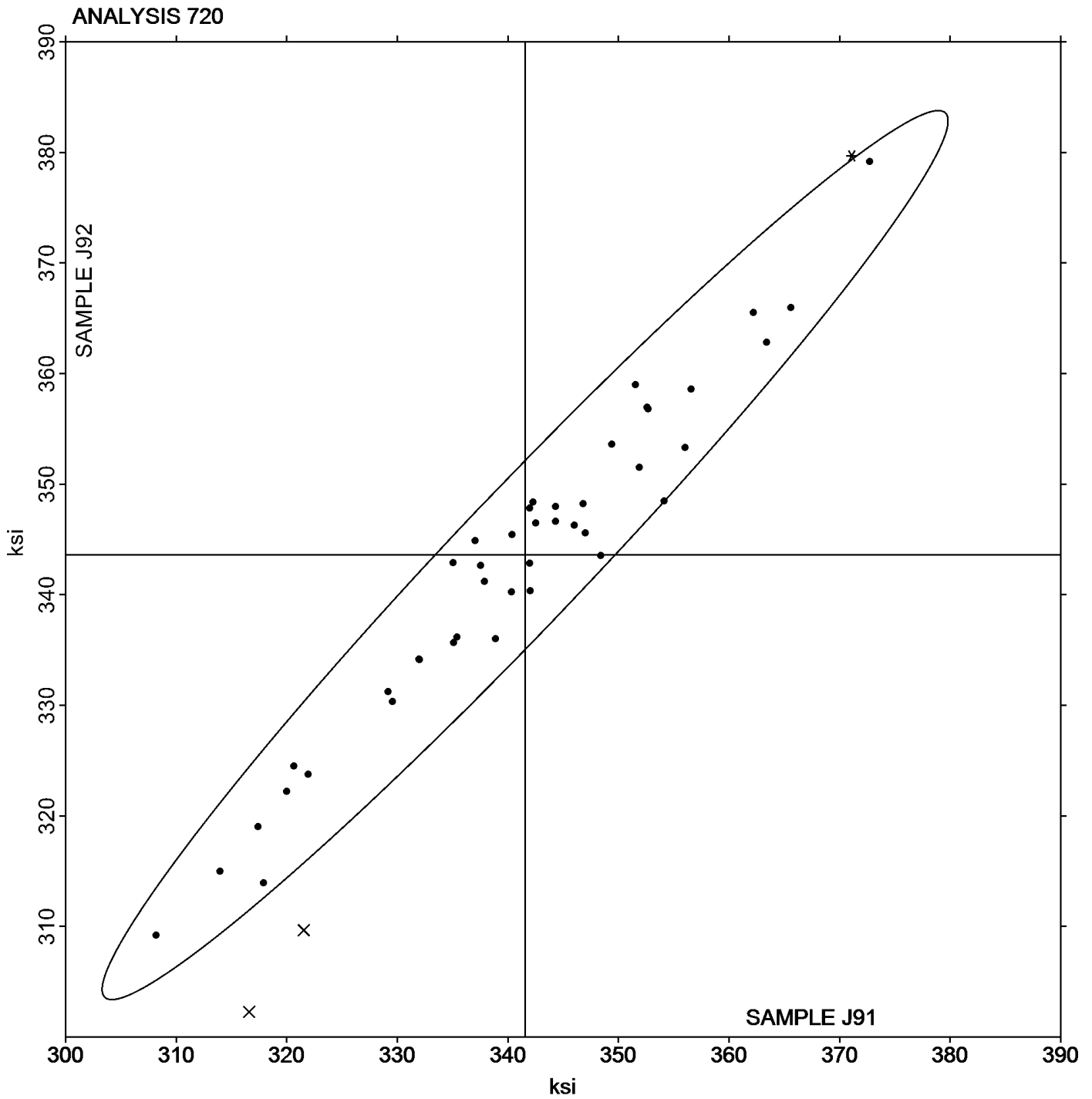


Plastics Interlaboratory Testing Program

Analysis 720 Flexural Modulus- ksi

Report #126
2nd Qtr 2023

Grand Mean Sample J91: 341.55 ksi Grand Mean Sample J92: 343.58 ksi





Plastics Interlaboratory Testing Program

Report #126

Analysis 721

2nd Qtr 2023

Flexural Stress at 5% Strain - psi

WebCode	Data Flag	Sample J91			Sample J92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
3K363P		11,805	213	0.43	11,740	103	0.21
3VXQ3N		10,957	-635	-1.27	10,868	-768	-1.55
6AXQYU		11,957	366	0.73	12,001	364	0.73
7E7GXU		12,482	891	1.79	12,435	798	1.61
7NKY88		11,801	209	0.42	11,821	185	0.37
7XHY9Z		11,638	46	0.09	11,614	-23	-0.05
8JUV92		11,020	-571	-1.15	11,180	-457	-0.92
92PZWL		10,847	-744	-1.49	10,857	-780	-1.57
AHD7QD		11,863	272	0.54	11,779	142	0.29
B9Y7LN		11,470	-122	-0.24	11,536	-101	-0.20
BETEHW	X	13,489	1,897	3.80	13,721	2,084	4.20
BW7KJY		12,314	722	1.45	12,382	746	1.50
CCWKTQ		11,970	378	0.76	11,980	343	0.69
D9DPQY		11,340	-251	-0.50	11,400	-237	-0.48
DYQNAP		11,940	349	0.70	12,000	363	0.73
E3MPTH		12,180	588	1.18	12,120	484	0.97
EHHL3N		10,726	-865	-1.74	10,880	-757	-1.52
GKV9LL		11,284	-308	-0.62	11,296	-341	-0.69
GWUADA		12,598	1,007	2.02	12,568	931	1.87
HKQGHN		11,482	-109	-0.22	11,552	-85	-0.17
JMMA9J		11,114	-477	-0.96	11,139	-497	-1.00
JNQ729		11,388	-203	-0.41	11,499	-138	-0.28
JVM22T		11,170	-421	-0.84	11,187	-450	-0.91
KF49H9		11,130	-461	-0.93	11,228	-409	-0.82
KGNA3	X	11,309	-282	-0.57	10,953	-684	-1.38
KHXR49		11,838	247	0.49	11,928	291	0.59
KR9LB2		11,193	-398	-0.80	11,181	-456	-0.92
KWEE4B	X	8,292	-3,300	-6.62	11,055	-582	-1.17
LDJ7JL		12,003	411	0.82	12,148	511	1.03
LK2GQU		11,584	-7	-0.01	11,662	25	0.05
MVXZNZ		12,297	705	1.41	12,417	780	1.57
N6GAH8		10,934	-658	-1.32	11,077	-560	-1.13
N6ZLA7		10,911	-680	-1.36	10,834	-802	-1.62
PHF73X		11,178	-413	-0.83	11,207	-430	-0.87
PL4DUL		11,751	160	0.32	11,881	244	0.49



Plastics Interlaboratory Testing Program

Report #126

Analysis 721

2nd Qtr 2023

Flexural Stress at 5% Strain - psi

WebCode	Data Flag	Sample J91			Sample J92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
PN6LWB		12,196	604	1.21	12,270	633	1.27
QJAE7V		11,407	-184	-0.37	11,419	-218	-0.44
RURKEH		12,163	571	1.15	12,269	632	1.27
TQGM9K		11,517	-74	-0.15	11,714	77	0.16
VE3PLB		11,604	13	0.03	11,732	95	0.19
WVLMZT		12,064	473	0.95	12,052	415	0.84
WZB8Y3		10,952	-640	-1.28	10,981	-656	-1.32
ZBJHRW	X	11,954	362	0.73	12,380	743	1.50

Summary Statistics

	Sample J91	Sample J92
Grand Means	11,591.5 psi	11,636.8 psi
Std Dev Btwn Labs	498.8 psi	496.7 psi

Statistics based on 39 of 43 reporting participants

Sample J91: ABS/PC & Sample J92: ABS/PC

Comments on Assigned Data Flags for Test #721

- BETEHW (X) - Data for both samples are high. Possible Systematic Error.
- KGNA3 (X) - Inconsistent in testing between samples.
- KWEE4B (X) - Data for sample J91 are low. Inconsistent within the determinations of sample J91.
- ZBJHRW (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample J91.



Plastics Interlaboratory Testing Program

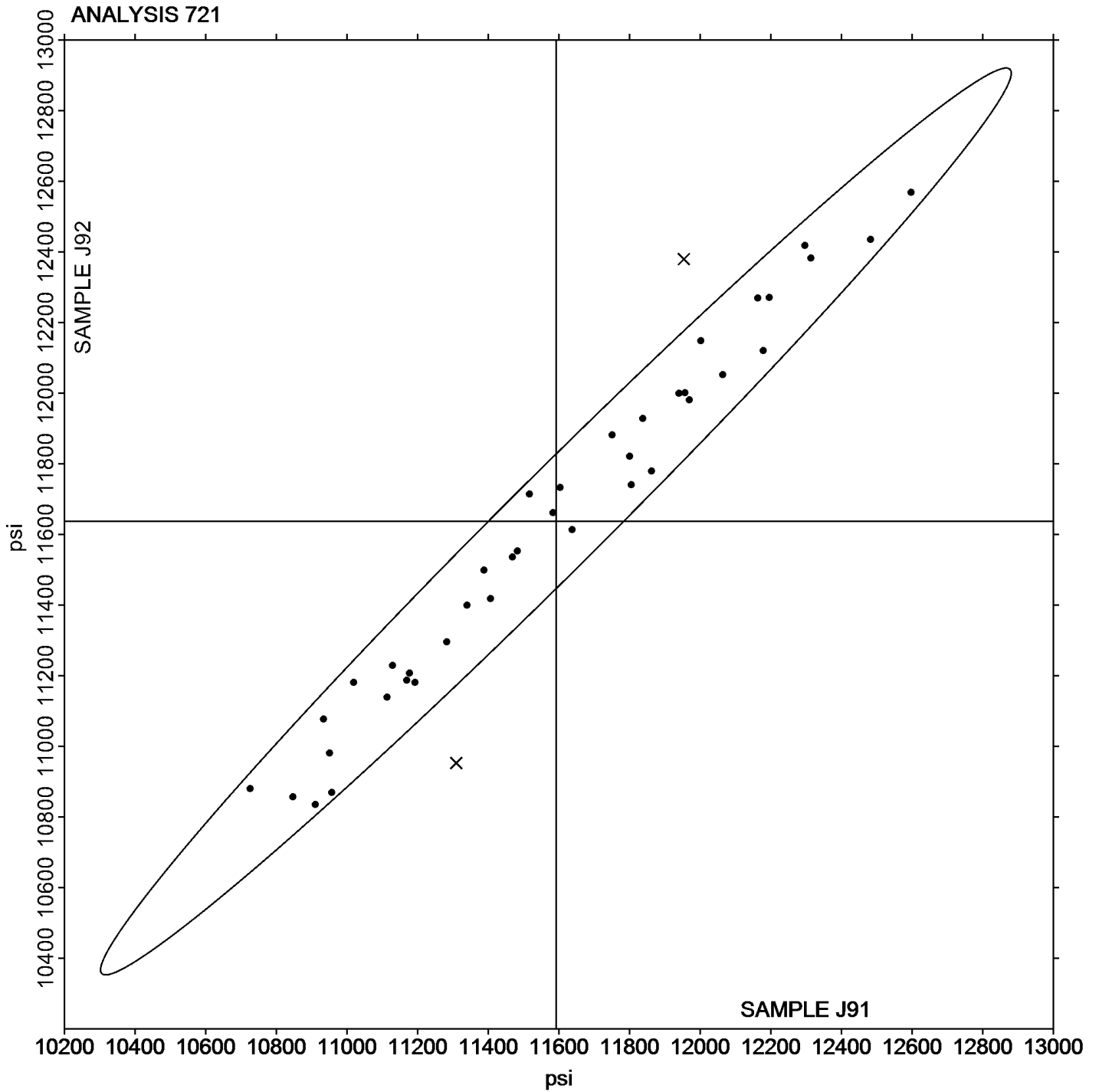
Report #126

Analysis 721

2nd Qtr 2023

Flexural Stress at 5% Strain - psi

Grand Mean Sample J91: 11,591.48 psi Grand Mean Sample J92: 11,636.80 psi





Plastics Interlaboratory Testing Program

Report #126

Analysis 722

2nd Qtr 2023

Flexural Stress at Yield - psi

WebCode	Data Flag	Sample J91			Sample J92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
3K363P		11,813	82	0.12	11,744	-29	-0.04
3VXQ3N		11,110	-621	-0.92	11,036	-737	-1.09
6AXQYU		12,012	282	0.42	12,056	282	0.42
7E7GXU		12,660	929	1.37	12,520	747	1.10
7NKY88		11,907	176	0.26	11,941	168	0.25
7XHY9Z		11,905	174	0.26	11,897	124	0.18
8JUV92		11,125	-606	-0.90	11,180	-593	-0.88
92PZWL		11,410	-321	-0.47	11,419	-354	-0.52
AHD7QD		12,088	357	0.53	12,022	249	0.37
BETEHW	*	13,518	1,787	2.64	13,721	1,947	2.88
BW7KJY		12,513	782	1.16	12,382	609	0.90
D846VQ		12,452	721	1.07	12,331	558	0.82
DYQNAP	*	9,640	-2,091	-3.09	9,616	-2,157	-3.19
E3MPTH		12,445	714	1.06	12,321	548	0.81
EBV4UY		12,032	302	0.45	12,247	474	0.70
EHHL3N		10,815	-916	-1.36	10,967	-806	-1.19
GKV9LL		11,741	10	0.01	11,680	-93	-0.14
GWUADA		12,170	439	0.65	12,202	429	0.63
HKQGHN		11,864	133	0.20	11,918	145	0.21
JMMA9J		11,160	-571	-0.85	11,187	-586	-0.87
JNQ729		11,594	-136	-0.20	11,693	-80	-0.12
JVM22T		11,278	-453	-0.67	11,305	-468	-0.69
KF49H9		11,132	-599	-0.89	11,236	-538	-0.80
KGNA3	X	11,387	-344	-0.51	11,002	-771	-1.14
KHXR49		12,208	477	0.71	12,343	570	0.84
KR9LB2		11,379	-352	-0.52	11,369	-405	-0.60
KWEE4B		10,984	-747	-1.10	11,150	-623	-0.92
LDJ7JL		12,153	422	0.62	12,250	476	0.70
LK2GQU		11,901	170	0.25	12,011	238	0.35
MVXZNZ		12,434	704	1.04	12,555	782	1.16
N6GAH8		10,945	-786	-1.16	11,101	-673	-0.99
N6ZLA7		11,485	-245	-0.36	11,405	-369	-0.54
PHF73X		11,243	-488	-0.72	11,273	-500	-0.74
PL4DUL		11,837	106	0.16	11,902	129	0.19
PN6LWB		12,194	463	0.69	12,268	495	0.73



Plastics Interlaboratory Testing Program

Report #126

Analysis 722

2nd Qtr 2023

Flexural Stress at Yield - psi

WebCode	Data Flag	Sample J91			Sample J92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
RX8LK3		12,250	519	0.77	12,231	458	0.68
VE3PLB		11,809	78	0.12	11,913	139	0.21
WF6498	*	11,615	-116	-0.17	12,013	240	0.35
WZB8Y3		10,952	-779	-1.15	10,981	-792	-1.17

Summary Statistics

	Sample J91	Sample J92
Grand Means	11,730.9 psi	11,773.4 psi
Stnd Dev Btwn Labs	675.8 psi	676.3 psi

Statistics based on 38 of 39 reporting participants

Sample J91: ABS/PC & Sample J92: ABS/PC

Comments on Assigned Data Flags for Test #722

KGNA3 (X) - Inconsistent in testing between samples.



Plastics Interlaboratory Testing Program

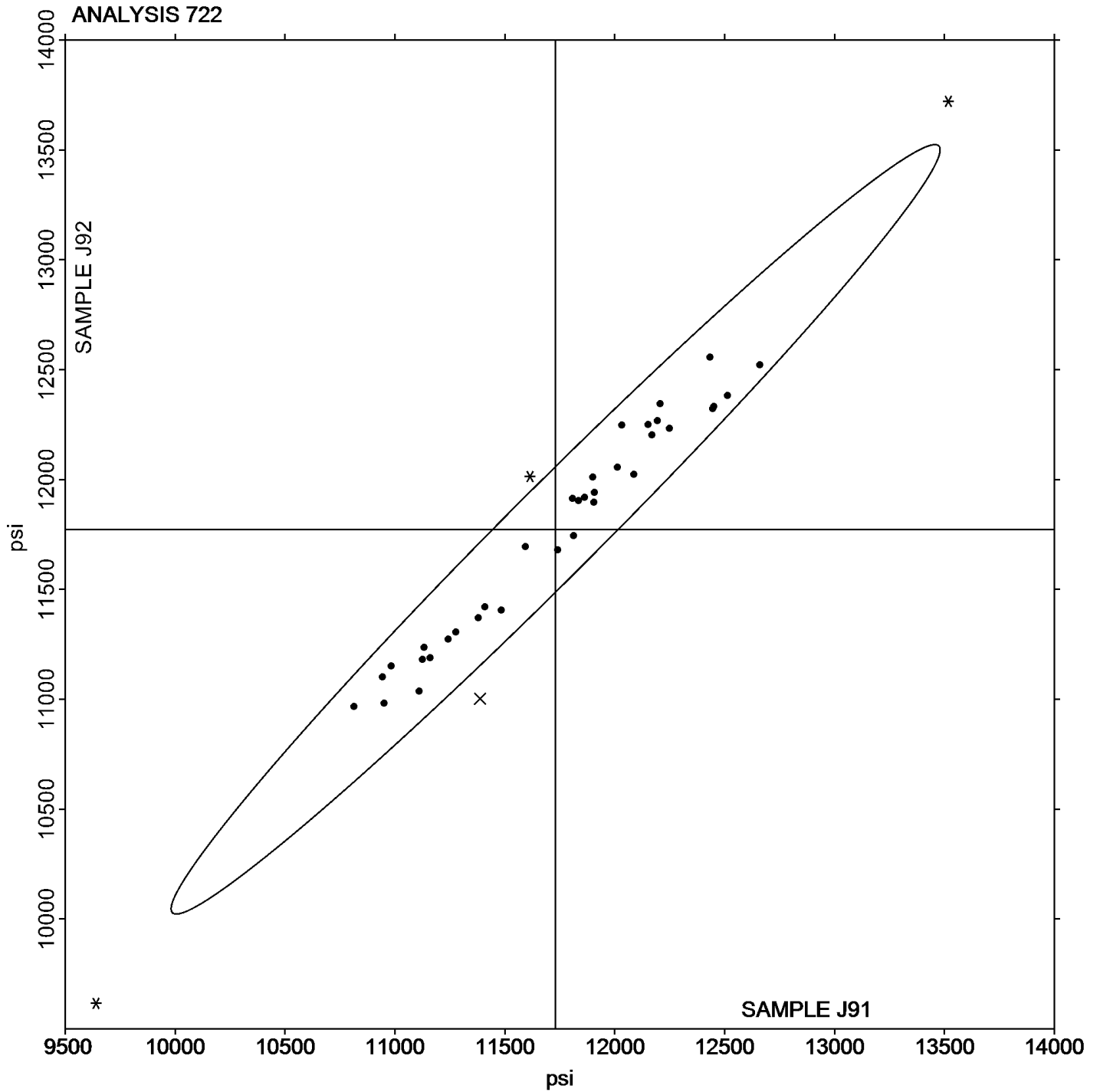
Analysis 722

Flexural Stress at Yield - psi

Report #126

2nd Qtr 2023

Grand Mean Sample J91: 11,730.85 psi Grand Mean Sample J92: 11,773.37 psi





Plastics Interlaboratory Testing Program

Report #126

Analysis 730

2nd Qtr 2023

Tensile Stress at Yield - MPa

WebCode	Data Flag	Sample C91			Sample C92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2FAKJF		23.66	0.19	0.30	23.50	0.01	0.01
3AWRFP		21.98	-1.48	-2.26	22.08	-1.41	-2.33
3EW7UK	*	23.59	0.13	0.19	23.18	-0.31	-0.51
3MRBML		22.70	-0.76	-1.16	22.97	-0.52	-0.86
3VXQ3N		22.86	-0.60	-0.92	23.00	-0.49	-0.81
6AXQYU		23.59	0.13	0.20	23.56	0.07	0.11
6P8JKC	X	20.75	-2.71	-4.14	21.56	-1.93	-3.19
7E7GXU		23.22	-0.24	-0.37	23.24	-0.25	-0.41
7FQUE7		23.70	0.23	0.35	23.73	0.24	0.39
7HLF3V	X	26.79	3.33	5.08	26.67	3.18	5.26
7NKY88		23.13	-0.34	-0.51	23.22	-0.27	-0.45
8JUV92	M	No data reported for this sample			3.71	-19.78	-32.69
8WA873		23.38	-0.08	-0.13	23.20	-0.29	-0.48
9263MG	X	16.87	-6.59	-10.06	16.95	-6.54	-10.80
AHD7QD		23.49	0.03	0.04	23.48	-0.01	-0.02
ANJUB8		24.78	1.32	2.01	24.84	1.35	2.23
AVH3AF		23.38	-0.08	-0.13	23.36	-0.13	-0.21
B9Y7LN	X	22.80	-0.66	-1.01	19.14	-4.35	-7.19
BVGP4Y		23.50	0.04	0.06	23.62	0.13	0.22
CCWKTQ		23.69	0.23	0.35	23.70	0.21	0.35
D3HJPW		23.93	0.47	0.71	24.01	0.52	0.86
DANRCX		23.84	0.38	0.58	23.85	0.36	0.59
DMCTR4		23.15	-0.31	-0.48	22.93	-0.56	-0.92
E3MPTH		23.32	-0.14	-0.22	23.36	-0.13	-0.21
E99APQ	X	26.61	3.15	4.81	26.46	2.97	4.91
EBV4UY		24.28	0.82	1.25	24.16	0.67	1.10
EU9QF8	X	25.16	1.70	2.59	23.81	0.32	0.53
H3P4HG		23.35	-0.11	-0.17	23.32	-0.17	-0.27
HKQGHN		24.38	0.91	1.40	24.26	0.77	1.27
JNQ729		23.43	-0.04	-0.06	23.59	0.10	0.17
JZJPFE		22.65	-0.81	-1.24	22.74	-0.75	-1.24
KF49H9	X	23.20	-0.26	-0.40	24.20	0.71	1.18
KGNA3		22.43	-1.03	-1.57	22.71	-0.78	-1.29
KJRDK		23.07	-0.39	-0.60	23.39	-0.10	-0.16
L7KLE6		23.87	0.41	0.62	23.94	0.45	0.74



Plastics Interlaboratory Testing Program

Report #126

Analysis 730

2nd Qtr 2023

Tensile Stress at Yield - MPa

WebCode	Data Flag	Sample C91			Sample C92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
LQNA3U		24.10	0.64	0.97	24.12	0.63	1.04
M6K3RU		22.24	-1.22	-1.86	22.35	-1.14	-1.88
M8LH8R	X	23.48	0.02	0.03	21.09	-2.40	-3.97
MH93JW	X	23.10	-0.36	-0.55	22.52	-0.97	-1.60
MKC79T	X	20.69	-2.77	-4.23	22.15	-1.34	-2.21
MZBP9A		24.65	1.19	1.81	24.59	1.10	1.82
PAKRXL	X	24.76	1.30	1.99	24.15	0.66	1.09
PHF73X		22.67	-0.79	-1.21	23.10	-0.39	-0.64
PN6LWB		23.77	0.30	0.46	23.63	0.14	0.24
PPGETY		23.70	0.24	0.36	23.64	0.15	0.25
QJTQXT		23.68	0.22	0.33	23.34	-0.15	-0.25
QQABWY		23.60	0.13	0.21	23.72	0.23	0.37
RKFWKX		23.60	0.14	0.21	23.62	0.13	0.21
RWCZVH		24.06	0.59	0.90	23.99	0.50	0.83
T2MZHG		24.69	1.22	1.87	24.62	1.13	1.86
UL3CRB		24.15	0.68	1.05	24.26	0.77	1.27
ULMH43		22.12	-1.34	-2.05	22.30	-1.19	-1.97
UZ4Y4X		23.37	-0.09	-0.14	23.14	-0.35	-0.57
VLZYME	X	23.78	0.32	0.49	23.02	-0.47	-0.78
VP2GTG		23.97	0.51	0.78	24.20	0.71	1.18
VY7XWL		23.97	0.50	0.77	24.05	0.56	0.93
WQQQDM		22.31	-1.15	-1.76	22.59	-0.90	-1.48
WTVUCK		23.60	0.14	0.21	23.58	0.09	0.15
YZTVD3	X	23.09	-0.37	-0.57	24.35	0.86	1.42
ZGR8M4		23.02	-0.44	-0.68	22.88	-0.61	-1.01
ZHH2X8		23.14	-0.32	-0.49	23.36	-0.13	-0.22

Summary Statistics		Sample C91	Sample C92
Grand Means		23.463 MPa	23.490 MPa
Std Dev Btwn Labs		0.655 MPa	0.605 MPa
Statistics based on 47 of 61 reporting participants			

Sample C91: HIPS & Sample C92: HIPS



Comments on Assigned Data Flags for Test #730

- YZTVD3 (X) - Inconsistent in testing between samples.
- VLZYME (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample C92.
- MH93JW (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample C91.
- EU9QF8 (X) - Inconsistent in testing between samples.
- 6P8JKC (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.
- B9Y7LN (X) - Data for sample C92 are low. Inconsistent within the determinations of sample C92.
- E99APQ (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample C92.
- 7HLF3V (X) - Data for both samples are high. Possible Systematic Error.
- 8JUV92 (M) - Participant did not submit data for sample C91.
- M8LH8R (X) - Data for sample C92 are low. Inconsistent within the determinations of both samples.
- PAKRXL (X) - Inconsistent in testing between samples.
- MKC79T (X) - Data for sample C91 are low. Inconsistent within the determinations of sample C92.
- KF49H9 (X) - Inconsistent in testing between samples.
- 9263MG (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample C92.



Plastics Interlaboratory Testing Program

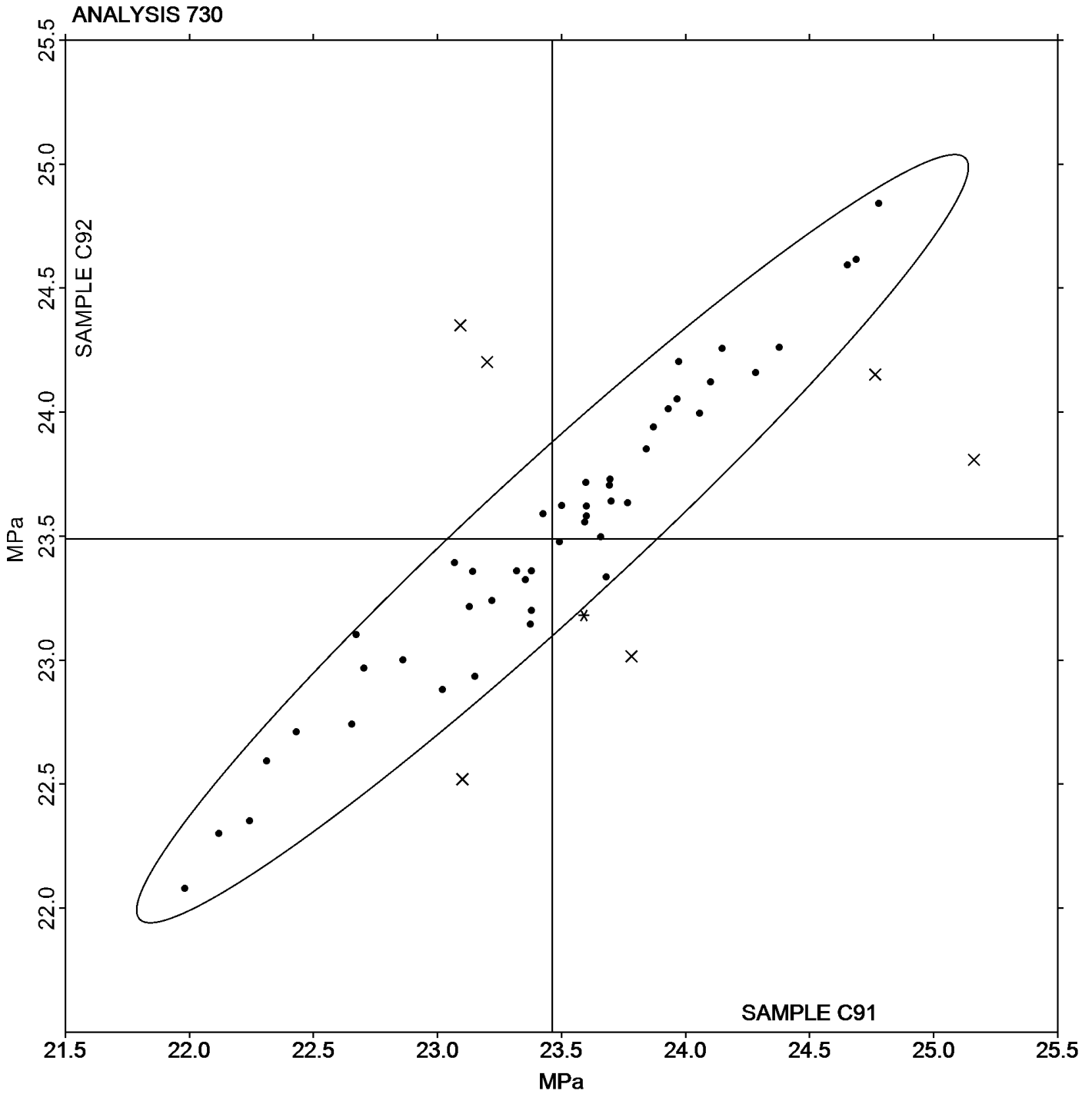
Analysis 730

Tensile Stress at Yield - MPa

Report #126

2nd Qtr 2023

Grand Mean Sample C91: 23.463 MPa Grand Mean Sample C92: 23.490 MPa





Plastics Interlaboratory Testing Program

Report #126

Analysis 731

2nd Qtr 2023

Tensile Stress at Break - MPa

WebCode	Data Flag	Sample C91			Sample C92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2FAKJF		18.08	-0.01	-0.02	17.99	-0.15	-0.26
3EW7UK		18.12	0.03	0.05	18.02	-0.11	-0.20
3VXQ3N		17.68	-0.42	-0.77	17.64	-0.50	-0.87
6AXQYU		18.12	0.02	0.04	18.37	0.24	0.41
6P8JKC	*	18.27	0.17	0.31	17.23	-0.91	-1.59
7E7GXU		17.40	-0.70	-1.28	17.76	-0.38	-0.66
7FQUE7		18.72	0.62	1.15	18.06	-0.08	-0.13
7HLF3V	X	20.52	2.43	4.45	20.85	2.71	4.76
7NKY88		17.69	-0.41	-0.75	17.57	-0.57	-1.00
8JUV92	M	No data reported for this sample			22.28	4.14	7.28
8WA873		18.59	0.49	0.90	18.59	0.45	0.80
9263MG	X	16.29	-1.81	-3.32	18.40	0.27	0.47
AHD7QD	X	15.02	-3.08	-5.66	15.00	-3.14	-5.51
ANJUB8		18.90	0.80	1.48	19.20	1.06	1.87
AVH3AF		18.20	0.10	0.19	17.94	-0.20	-0.35
B9Y7LN		18.08	-0.01	-0.03	18.03	-0.10	-0.18
BVGP4Y		17.81	-0.29	-0.53	17.81	-0.33	-0.57
CCWKTQ		18.33	0.24	0.44	18.15	0.01	0.02
D3HJPW		18.70	0.60	1.10	18.25	0.12	0.21
DANRCX		18.03	-0.06	-0.11	18.26	0.12	0.21
E3MPH		17.94	-0.16	-0.29	18.12	-0.02	-0.03
E99APQ	X	24.10	6.00	11.03	35.52	17.38	30.54
H3P4HG		17.75	-0.35	-0.64	18.03	-0.11	-0.19
HKQGHN		18.87	0.77	1.41	18.82	0.68	1.19
JNQ729		17.85	-0.25	-0.46	18.05	-0.09	-0.15
JZJPFE		17.84	-0.26	-0.47	17.40	-0.74	-1.29
KF49H9	X	17.11	-0.99	-1.82	18.74	0.61	1.06
KGNA3		17.08	-1.01	-1.86	17.46	-0.68	-1.19
KJRDK	M	No data reported for this sample			18.20	0.06	0.11
L7KLE6		18.05	-0.05	-0.09	18.45	0.31	0.55
LQNA3U		17.99	-0.11	-0.20	18.22	0.09	0.15
M6K3RU		17.53	-0.57	-1.05	18.13	0.00	-0.01
M8LH8R	X	24.14	6.05	11.10	23.61	5.47	9.61
MH93JW	X	23.10	5.00	9.19	22.52	4.38	7.70
MKC79T	*	17.49	-0.60	-1.11	18.50	0.37	0.64



Plastics Interlaboratory Testing Program

Report #126

Analysis 731

2nd Qtr 2023

Tensile Stress at Break - MPa

WebCode	Data Flag	Sample C91			Sample C92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MZBP9A		18.86	0.76	1.39	19.19	1.05	1.84
PAKRXL		18.94	0.84	1.55	18.52	0.38	0.67
PHF73X		17.06	-1.03	-1.90	17.66	-0.47	-0.83
PN6LWB		17.89	-0.21	-0.38	18.17	0.03	0.06
PPGETY		18.46	0.36	0.67	18.54	0.40	0.71
QJTQXT		17.93	-0.16	-0.30	17.93	-0.21	-0.36
QQABWY		18.20	0.11	0.20	18.09	-0.04	-0.07
RKFWKX		17.82	-0.28	-0.51	17.80	-0.34	-0.59
RWCZVH		18.29	0.19	0.36	18.58	0.44	0.78
T2MZHG		18.46	0.36	0.67	19.03	0.89	1.57
UL3CRB		18.36	0.26	0.48	18.54	0.40	0.71
ULMH43		17.12	-0.98	-1.79	16.84	-1.30	-2.28
VLZYME		18.85	0.75	1.38	18.29	0.15	0.26
VP2GTG		18.37	0.28	0.51	18.65	0.51	0.90
VY7XWL		18.25	0.15	0.28	18.61	0.48	0.84
WQQQDM		17.54	-0.56	-1.03	17.38	-0.75	-1.32
WTVUCK		18.58	0.49	0.89	18.39	0.25	0.44
YZTVD3		19.30	1.20	2.21	19.27	1.13	1.99
ZHH2X8	*	16.96	-1.14	-2.09	16.61	-1.53	-2.68

Summary Statistics		
	Sample C91	Sample C92
Grand Means	18.097 MPa	18.136 MPa
Stnd Dev Btwn Labs	0.544 MPa	0.569 MPa
Statistics based on 45 of 54 reporting participants		

Sample C91: HIPS & Sample C92: HIPS



Comments on Assigned Data Flags for Test #731

- MH93JW (X) - Data for both samples are high. Possible Systematic Error.
- AHD7QD (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.
- KJRDYK (M) - Participant did not submit data for sample C91.
- E99APQ (X) - Data for both samples are high. Inconsistent within the determinations of both samples.
- 7HLF3V (X) - Data for both samples are high. Possible Systematic Error.
- 8JUV92 (M) - Participant did not submit data for sample C91.
- M8LH8R (X) - Data for both samples are high. Possible Systematic Error.
- KF49H9 (X) - Inconsistent in testing between samples.
- 9263MG (X) - Data for sample C91 are low. Inconsistent within the determinations of sample C91.



Plastics Interlaboratory Testing Program

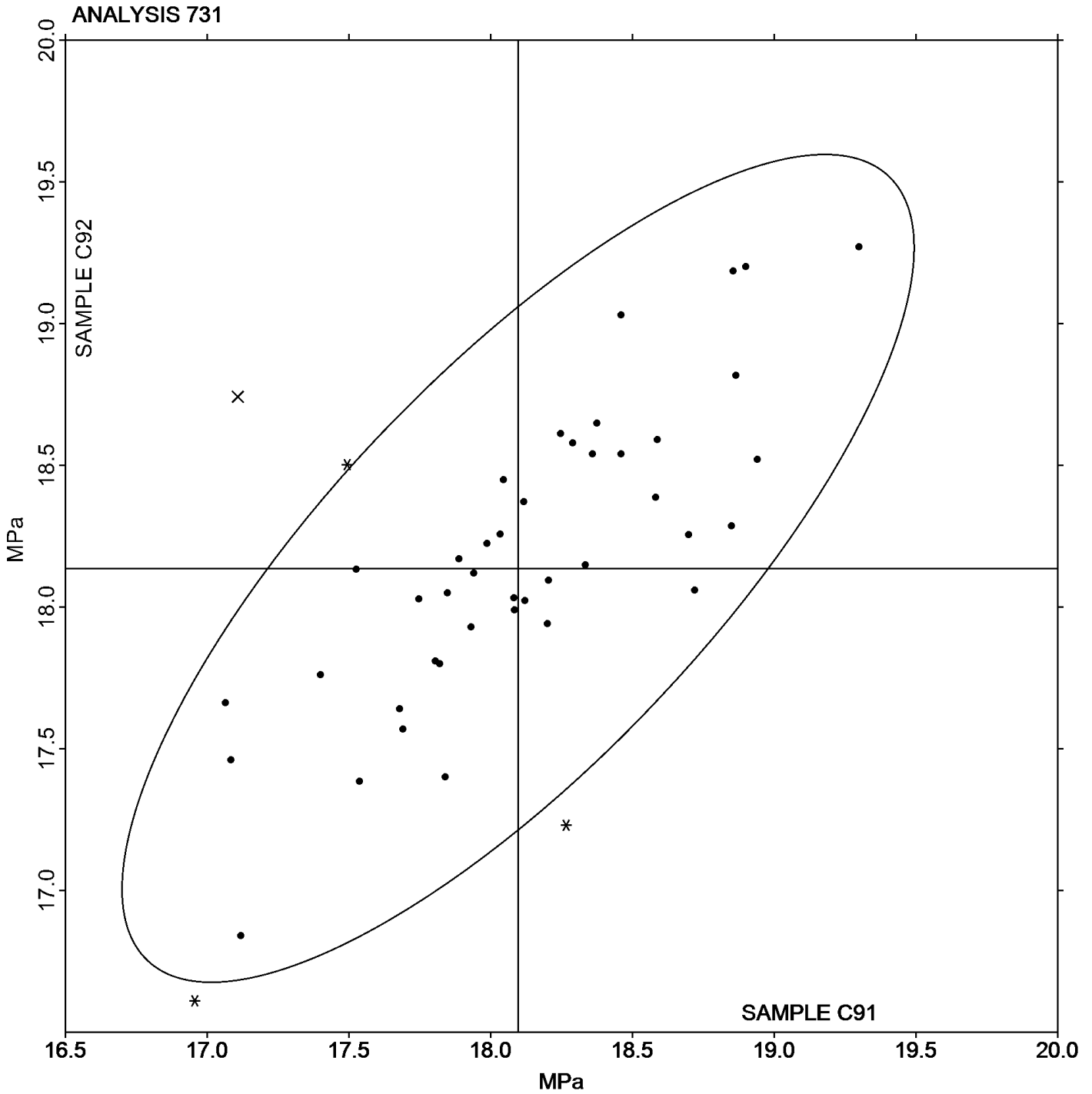
Analysis 731

Tensile Stress at Break - MPa

Report #126

2nd Qtr 2023

Grand Mean Sample C91: 18.097 MPa Grand Mean Sample C92: 18.136 MPa





Plastics Interlaboratory Testing Program

Report #126

Analysis 732

2nd Qtr 2023

Percent Strain at Yield

WebCode	Data Flag	Sample C91			Sample C92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2FAKJF		1.460	-0.046	-0.75	1.450	-0.055	-0.94
3EW7UK		1.548	0.042	0.70	1.520	0.015	0.27
3VXQ3N	X	2.154	0.648	10.68	2.186	0.681	11.73
6AXQYU		1.490	-0.016	-0.26	1.478	-0.027	-0.46
7E7GXU		1.500	-0.006	-0.09	1.500	-0.005	-0.08
7FQUE7		1.460	-0.046	-0.75	1.480	-0.025	-0.42
7HLF3V	*	1.666	0.160	2.64	1.664	0.159	2.74
7NKY88	*	1.658	0.152	2.51	1.634	0.129	2.23
8JUV92	M	No data reported for this sample			3.710	2.205	37.97
8WA873		1.578	0.072	1.19	1.574	0.069	1.19
9263MG	X	3.832	2.326	38.32	3.972	2.467	42.48
AHD7QD		1.474	-0.032	-0.52	1.476	-0.029	-0.49
ANJUB8		1.500	-0.006	-0.09	1.500	-0.005	-0.08
AVH3AF		1.578	0.072	1.19	1.582	0.077	1.33
B9Y7LN		1.476	-0.030	-0.49	1.462	-0.043	-0.73
BVGP4Y		1.522	0.016	0.27	1.520	0.015	0.27
CCWKTQ		1.482	-0.024	-0.39	1.488	-0.017	-0.29
D3HJPW		1.498	-0.008	-0.12	1.516	0.011	0.20
DANRCX		1.474	-0.032	-0.52	1.462	-0.043	-0.73
DMCTR4		1.422	-0.084	-1.38	1.416	-0.089	-1.53
E3MPH		1.500	-0.006	-0.09	1.500	-0.005	-0.08
E99APQ	X	1.573	0.068	1.12	1.427	-0.078	-1.34
EBV4UY		1.484	-0.022	-0.36	1.484	-0.021	-0.35
EU9QF8	X	5.778	4.272	70.38	5.614	4.109	70.75
H3P4HG		1.478	-0.028	-0.45	1.478	-0.027	-0.46
JNQ729		1.420	-0.086	-1.41	1.442	-0.063	-1.08
JZJPFE		1.420	-0.086	-1.41	1.460	-0.045	-0.77
KF49H9		1.482	-0.024	-0.39	1.500	-0.005	-0.08
KGNA3		1.432	-0.074	-1.21	1.438	-0.067	-1.15
KJRDK	X	1.333	-0.172	-2.84	1.450	-0.055	-0.94
L7KLE6		1.480	-0.026	-0.42	1.474	-0.031	-0.53
LQNA3U	X	1.551	0.046	0.76	1.665	0.161	2.77
M6K3RU	*	1.448	-0.058	-0.95	1.408	-0.097	-1.66
M8LH8R		1.498	-0.008	-0.12	1.480	-0.025	-0.42
MH93JW	X	1.400	-0.106	-1.74	1.320	-0.185	-3.18



Plastics Interlaboratory Testing Program

Report #126

Analysis 732

2nd Qtr 2023

Percent Strain at Yield

WebCode	Data Flag	Sample C91			Sample C92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MKC79T	X	1.164	-0.341	-5.62	1.245	-0.259	-4.46
MZBP9A		1.525	0.020	0.32	1.530	0.026	0.44
PAKRXL		1.538	0.032	0.53	1.512	0.007	0.13
PHF73X		1.420	-0.086	-1.41	1.450	-0.055	-0.94
PN6LWB		1.546	0.040	0.67	1.520	0.015	0.27
PPGETY		1.470	-0.036	-0.59	1.452	-0.053	-0.91
QJTQXT		1.468	-0.038	-0.62	1.470	-0.035	-0.60
QQABWY		1.474	-0.032	-0.52	1.500	-0.005	-0.08
RKFWKX		1.500	-0.006	-0.09	1.480	-0.025	-0.42
RWCZVH		1.558	0.052	0.86	1.576	0.071	1.23
T2MZHG		1.632	0.126	2.08	1.620	0.115	1.99
UL3CRB		1.508	0.002	0.04	1.502	-0.003	-0.04
ULMH43		1.470	-0.036	-0.59	1.470	-0.035	-0.60
VLZYME	X	1.460	-0.046	-0.75	1.374	-0.131	-2.25
VP2GTG	X	16.620	15.114	248.98	18.840	17.335	298.47
VY7XWL		1.586	0.080	1.32	1.595	0.090	1.55
WQQQDM	X	1.512	0.006	0.11	1.670	0.165	2.85
WTVUCK		1.596	0.090	1.48	1.596	0.091	1.57
YZTV D3	X	1.350	-0.156	-2.56	1.460	-0.045	-0.77
ZHH2X8		1.515	0.009	0.16	1.535	0.030	0.52

Summary Statistics		
	Sample C91	Sample C92
Grand Means	1.5056 Percent	1.5046 Percent
Std Dev Btwn Labs	0.0607 Percent	0.0581 Percent
Statistics based on 42 of 55 reporting participants		

Sample C91: HIPS & Sample C92: HIPS



Comments on Assigned Data Flags for Test #732

- YZTVD3 (X) - Inconsistent in testing between samples.
- VLZYME (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample C92.
- MH93JW (X) - Data for sample C92 are low.
- WQQQDM (X) - Data for sample C92 are high. Inconsistent within the determinations of sample C91.
- LQNA3U (X) - Data for sample C92 are high. Inconsistent within the determinations of sample C92.
- EU9QF8 (X) - Extreme data.
- KJRDYK (X) - Data for sample C91 are low. Inconsistent within the determinations of both samples.
- E99APQ (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- 8JUV92 (M) - Participant did not submit data for sample C91.
- VP2GTG (X) - Extreme data.
- MKC79T (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.
- 9263MG (X) - Extreme data.
- 3VXQ3N (X) - Data for both samples are high. Possible Systematic Error.

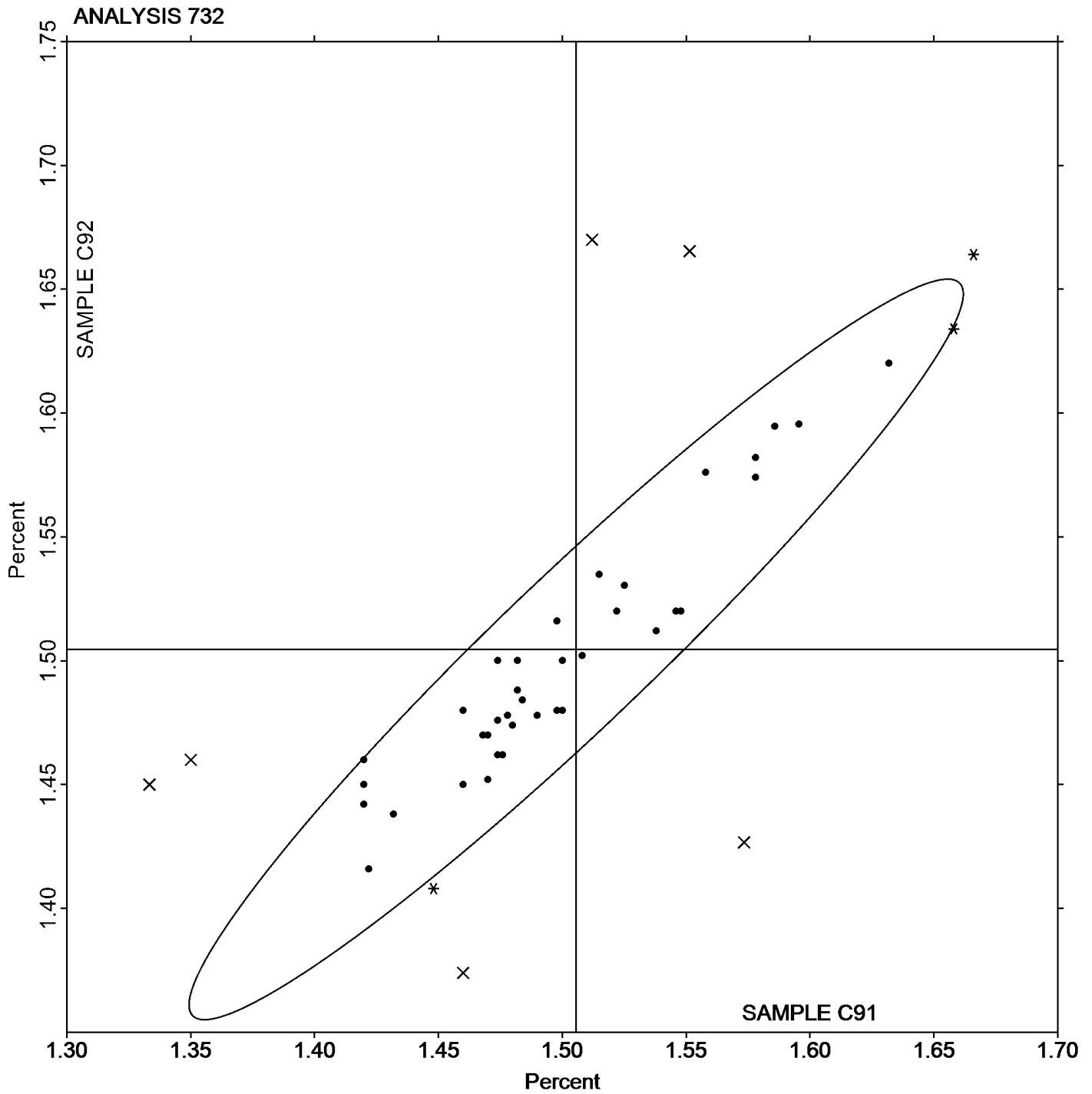


Plastics Interlaboratory Testing Program

Analysis 732 Percent Strain at Yield

Report #126
2nd Qtr 2023

Grand Mean Sample C91: 1.5056 Percent Grand Mean Sample C92: 1.5046 Percent





Plastics Interlaboratory Testing Program

Report #126

Analysis 734

2nd Qtr 2023

Modulus of Elasticity - MPa

WebCode	Data Flag	Sample C91			Sample C92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2FAKJF		1,861	78	1.07	1,855	68	0.98
3EW7UK		1,767	-16	-0.22	1,774	-12	-0.18
3VXQ3N	X	1,236	-547	-7.49	1,185	-601	-8.72
6AXQYU		1,811	28	0.39	1,814	27	0.39
6P8JKC	X	1,558	-226	-3.09	1,817	31	0.44
7E7GXU		1,778	-5	-0.07	1,772	-15	-0.21
7FQUE7		1,803	20	0.27	1,804	18	0.26
7HLF3V		1,744	-39	-0.54	1,748	-39	-0.56
7NKY88	X	1,538	-246	-3.36	1,624	-163	-2.36
8JUV92	M	No data reported for this sample			1,802	15	0.22
8WA873		1,769	-15	-0.20	1,740	-47	-0.68
9263MG	*	1,704	-79	-1.09	1,640	-147	-2.13
AHD7QD		1,877	93	1.28	1,845	58	0.84
ANJUB8		1,652	-131	-1.80	1,704	-83	-1.20
AVH3AF		1,769	-15	-0.20	1,771	-16	-0.23
B9Y7LN		1,804	21	0.29	1,794	7	0.11
BVGP4Y		1,675	-109	-1.49	1,695	-92	-1.33
CCWKTQ	*	1,989	206	2.82	1,929	142	2.06
D3HJPW		1,819	36	0.49	1,825	38	0.55
DANRCX		1,867	84	1.15	1,921	134	1.95
DMCTR4		1,850	67	0.91	1,806	19	0.28
E3MPH		1,712	-71	-0.97	1,748	-39	-0.56
E99APQ	X	2,145	362	4.95	2,109	322	4.67
EBV4UY		1,790	7	0.10	1,764	-23	-0.33
EU9QF8		1,724	-60	-0.82	1,790	3	0.04
H3P4HG		1,758	-25	-0.34	1,758	-29	-0.42
JNQ729		1,787	4	0.05	1,774	-13	-0.18
JZJPFE		1,758	-25	-0.34	1,750	-37	-0.54
KF49H9		1,740	-43	-0.59	1,774	-12	-0.18
KGNA3		1,810	27	0.36	1,836	49	0.71
KJRDK		1,797	14	0.19	1,814	27	0.40
L7KLE6		1,774	-10	-0.13	1,774	-13	-0.18
LQNA3U		1,744	-39	-0.53	1,759	-28	-0.40
M6K3RU		1,733	-50	-0.69	1,787	0	0.00
M8LH8R		1,871	88	1.20	1,847	60	0.87



Plastics Interlaboratory Testing Program

Report #126

Analysis 734

2nd Qtr 2023

Modulus of Elasticity - MPa

WebCode	Data Flag	Sample C91			Sample C92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MH93JW		1,899	116	1.59	1,939	152	2.20
MZBP9A		1,862	78	1.07	1,839	52	0.75
PAKRXL		1,858	75	1.02	1,846	59	0.86
PHF73X		1,786	3	0.04	1,792	5	0.08
PN6LWB		1,811	28	0.38	1,786	0	0.00
PPGETY		1,818	35	0.48	1,801	14	0.20
QJTQXT		1,743	-40	-0.55	1,724	-63	-0.91
QQABWY		1,803	19	0.27	1,797	10	0.15
RKFWKX		1,768	-15	-0.21	1,771	-16	-0.23
RWCZVH		1,641	-142	-1.95	1,650	-136	-1.98
T2MZHG		1,847	64	0.88	1,866	79	1.15
UL3CRB		1,898	115	1.57	1,897	110	1.59
ULMH43		1,648	-135	-1.85	1,660	-127	-1.84
VLZYME	*	1,827	43	0.59	1,899	113	1.63
VP2GTG		1,698	-86	-1.17	1,712	-75	-1.09
VY7XWL		1,715	-68	-0.93	1,720	-67	-0.97
WQQQDM	X	725	-1,058	-14.48	1,663	-124	-1.79
WTVUCK		1,650	-133	-1.83	1,680	-106	-1.54
ZHH2X8		1,785	1	0.02	1,776	-11	-0.16

Summary Statistics		
	Sample C91	Sample C92
Grand Means	1,783.2 MPa	1,786.8 MPa
Stnd Dev Btwn Labs	73.0 MPa	69.0 MPa
Statistics based on 48 of 54 reporting participants		

Sample C91: HIPS & Sample C92: HIPS

Comments on Assigned Data Flags for Test #734

- WQQQDM (X) - Data for sample C91 are low.
- 6P8JKC (X) - Data for sample C91 are low. Inconsistent within the determinations of both samples.
- E99APQ (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.
- 8JUV92 (M) - Participant did not submit data for sample C91.
- 7NKY88 (X) - Data for sample C91 are low.
- 3VXQ3N (X) - Data for both samples are low. Possible Systematic Error.



Plastics Interlaboratory Testing Program

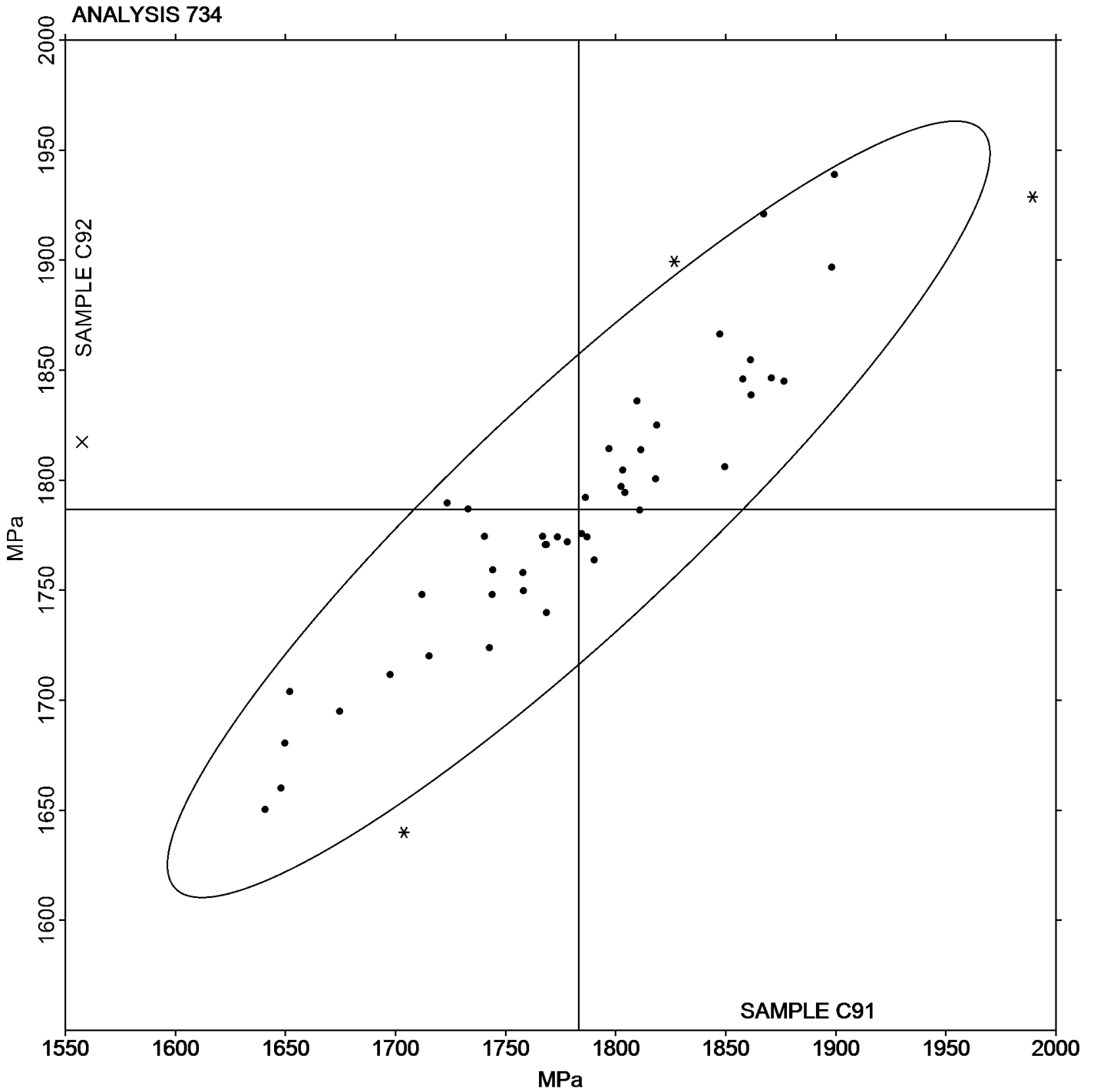
Analysis 734

Modulus of Elasticity - MPa

Report #126

2nd Qtr 2023

Grand Mean Sample C91: 1,783.19 MPa Grand Mean Sample C92: 1,786.76 MPa





Plastics Interlaboratory Testing Program

Report #126

Analysis 736

2nd Qtr 2023

Flexural Modulus - MPa

WebCode	Data Flag	Sample K91			Sample K92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
3AWRFP	X	2,105	305	4.22	2,127	328	4.30
3EW7UK		1,838	37	0.51	1,845	46	0.60
3MRBML		1,782	-19	-0.26	1,769	-29	-0.38
6AXQYU		1,717	-83	-1.15	1,752	-47	-0.61
7FQUE7		1,871	70	0.97	1,860	61	0.80
7HLF3V		1,746	-55	-0.76	1,754	-45	-0.59
8JUV92	X	2	-1,799	-24.94	2	-1,797	-23.53
8WA873		1,904	103	1.43	1,902	103	1.35
9263MG		1,875	74	1.03	1,850	51	0.67
9AL2PE		1,731	-70	-0.97	1,719	-79	-1.04
A96CUZ		1,802	1	0.02	1,790	-9	-0.12
AHD7QD		1,830	29	0.40	1,836	38	0.49
ANJUB8		1,691	-109	-1.52	1,714	-85	-1.11
AVH3AF		1,869	69	0.95	1,874	75	0.99
B9Y7LN		1,757	-43	-0.60	1,744	-55	-0.72
BVGP4Y		1,743	-58	-0.80	1,766	-32	-0.42
CCWKTQ		1,839	38	0.53	1,843	45	0.59
D2UEHP		1,912	112	1.55	1,932	133	1.74
D3HJPW		1,800	0	-0.01	1,799	0	0.00
DANRCX		1,786	-14	-0.20	1,748	-51	-0.67
DMCTR4		1,736	-64	-0.89	1,747	-52	-0.67
E3MPTH		1,799	-1	-0.02	1,800	1	0.01
E99APQ	X	2,136	335	4.64	2,176	377	4.94
EBV4UY		1,846	46	0.63	1,865	67	0.87
EU9QF8		1,789	-12	-0.16	1,785	-14	-0.18
JNQ729		1,782	-18	-0.25	1,787	-12	-0.15
JZJPFE		1,871	71	0.98	1,882	83	1.09
KF49H9		1,809	9	0.12	1,799	1	0.01
KGNA3		1,711	-89	-1.24	1,671	-128	-1.68
KJRDK		1,819	18	0.25	1,834	35	0.46
LQNA3U		1,832	31	0.43	1,817	19	0.24
M6K3RU		1,765	-35	-0.49	1,780	-19	-0.25
M8LH8R		1,820	19	0.26	1,794	-5	-0.06
MH93JW		1,661	-140	-1.94	1,643	-156	-2.04
MZBP9A		1,968	167	2.31	1,988	189	2.48



Plastics Interlaboratory Testing Program

Report #126

Analysis 736

2nd Qtr 2023

Flexural Modulus - MPa

WebCode	Data Flag	Sample K91			Sample K92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NFZHL3		1,828	27	0.38	1,806	7	0.10
PAKRXL		1,960	159	2.20	1,970	171	2.24
PHF73X		1,775	-26	-0.36	1,763	-36	-0.47
PN6LWB		1,916	116	1.60	1,903	105	1.37
PPGETY		1,700	-101	-1.40	1,683	-116	-1.52
QJTQXT	X	2,636	835	11.58	2,655	856	11.21
QQABWY		1,777	-24	-0.33	1,773	-25	-0.33
RKFWKX	*	1,770	-31	-0.43	1,720	-79	-1.03
T2MZHG		1,858	57	0.79	1,848	49	0.65
T2YAEF		1,775	-26	-0.36	1,778	-21	-0.27
UL3CRB		1,888	87	1.21	1,877	78	1.03
UZ4Y4X		1,764	-37	-0.51	1,772	-27	-0.35
VLZYME		1,817	17	0.23	1,800	1	0.01
VP2GTG		1,815	14	0.20	1,840	41	0.54
VY7XWL		1,923	122	1.69	1,926	128	1.67
WQQQDM		1,679	-122	-1.69	1,675	-124	-1.62
WTVUCK		1,751	-49	-0.69	1,751	-48	-0.62
XVZBT8		1,782	-18	-0.26	1,816	17	0.22
YZTVD3		1,705	-96	-1.33	1,698	-101	-1.32
ZGR8M4		1,764	-36	-0.51	1,771	-28	-0.37
ZHH2X8		1,688	-112	-1.56	1,677	-122	-1.59

Summary Statistics		
	Sample K91	Sample K92
Grand Means	1,800.7 MPa	1,798.7 MPa
Std Dev Btwn Labs	72.1 MPa	76.4 MPa
Statistics based on 52 of 56 reporting participants		

Sample K91: HIPS & Sample K92: HIPS

Comments on Assigned Data Flags for Test #736

- QJTQXT (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample K92.
- E99APQ (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.
- 8JUV92 (X) - Extreme data.
- 3AWRFP (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.



Plastics Interlaboratory Testing Program

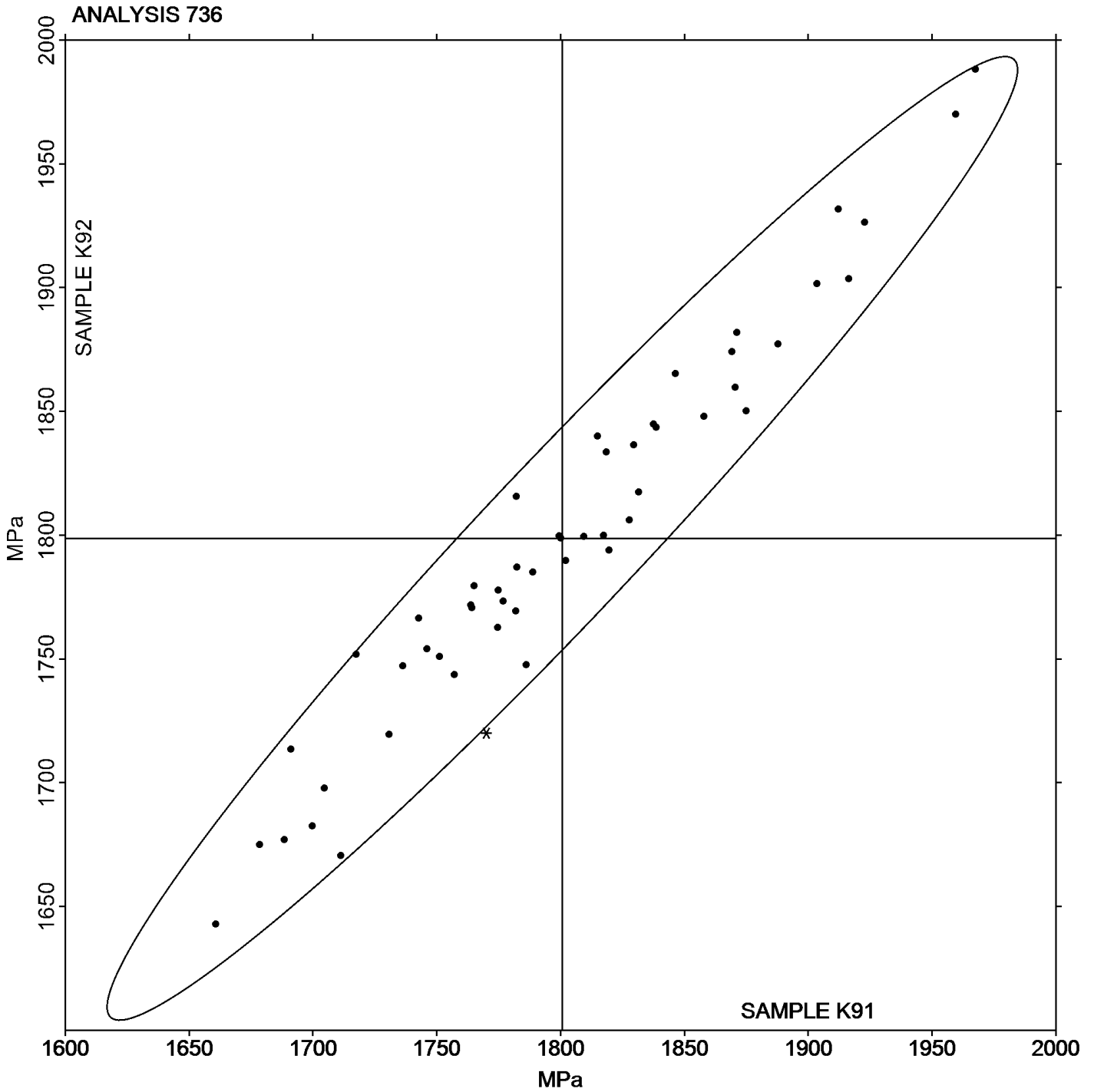
Analysis 736

Flexural Modulus - MPa

Report #126

2nd Qtr 2023

Grand Mean Sample K91: 1,800.67 MPa Grand Mean Sample K92: 1,798.72 MPa





Plastics Interlaboratory Testing Program

Report #126

Analysis 737

2nd Qtr 2023

Flexural Stress at 3.5% Strain - MPa

WebCode	Data Flag	Sample K91			Sample K92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
3EW7UK		38.68	1.17	0.91	38.52	0.98	0.74
6AXQYU		38.30	0.79	0.62	38.61	1.07	0.80
7FQUE7		39.85	2.34	1.82	40.44	2.90	2.18
7HLF3V		37.85	0.34	0.27	37.65	0.11	0.08
8JUV92		37.88	0.37	0.29	38.54	1.00	0.75
8WA873		38.98	1.47	1.15	38.88	1.34	1.01
9263MG		37.56	0.05	0.04	37.58	0.03	0.02
9AL2PE		37.58	0.07	0.06	37.47	-0.07	-0.05
AHD7QD		37.69	0.18	0.14	37.80	0.26	0.20
ANJUB8		37.02	-0.49	-0.38	36.33	-1.21	-0.92
AVH3AF		34.62	-2.89	-2.25	34.92	-2.62	-1.98
B9Y7LN		37.16	-0.34	-0.27	36.72	-0.82	-0.62
BVGP4Y		36.78	-0.73	-0.56	37.07	-0.47	-0.36
CCWKTQ		38.01	0.50	0.39	37.66	0.12	0.09
D2UEHP		38.10	0.60	0.46	37.43	-0.11	-0.08
D3HJPW		37.19	-0.32	-0.25	37.02	-0.52	-0.39
DANRCX		37.73	0.23	0.18	37.65	0.11	0.08
DMCTR4		37.01	-0.50	-0.39	37.05	-0.49	-0.37
E3MPTH		38.20	0.69	0.54	38.22	0.68	0.51
E99APQ		40.07	2.57	1.99	40.30	2.76	2.08
JNQ729		37.40	-0.11	-0.09	37.44	-0.11	-0.08
JZJPFE		36.33	-1.18	-0.92	36.69	-0.85	-0.64
KF49H9		35.28	-2.23	-1.74	35.20	-2.35	-1.77
KGNA33	X	31.16	-6.34	-4.93	34.67	-2.87	-2.16
KJRDK		39.11	1.61	1.25	39.31	1.76	1.33
LQNA3U		38.53	1.02	0.79	38.84	1.29	0.97
M6K3RU		37.60	0.09	0.07	37.43	-0.11	-0.08
M8LH8R		36.54	-0.97	-0.75	36.94	-0.60	-0.46
MH93JW	X	36.96	-0.55	-0.43	34.86	-2.68	-2.02
MZBP9A		39.62	2.11	1.64	39.78	2.23	1.68
NFZHL3		36.98	-0.53	-0.41	36.41	-1.14	-0.86
PAKRXL	*	36.55	-0.96	-0.75	37.47	-0.07	-0.05
PHF73X		35.61	-1.90	-1.47	35.66	-1.89	-1.42
PN6LWB	X	73.73	36.23	28.17	74.30	36.75	27.69
PPGETY		37.17	-0.33	-0.26	37.01	-0.53	-0.40



Plastics Interlaboratory Testing Program

Report #126

Analysis 737

2nd Qtr 2023

Flexural Stress at 3.5% Strain - MPa

WebCode	Data Flag	Sample K91			Sample K92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
QQABWY		37.09	-0.42	-0.32	37.25	-0.30	-0.22
RKFWKX		36.48	-1.03	-0.80	36.96	-0.58	-0.44
T2MZHG		39.22	1.71	1.33	39.04	1.50	1.13
T2YAEF		38.00	0.49	0.38	37.58	0.04	0.03
UL3CRB		39.03	1.52	1.18	39.10	1.55	1.17
VP2GTG		36.34	-1.17	-0.91	36.22	-1.33	-1.00
VY7XWL		34.30	-3.20	-2.49	34.50	-3.05	-2.30
WQQQDM		35.91	-1.60	-1.25	35.94	-1.60	-1.21
WTVUCK		37.55	0.05	0.04	37.65	0.11	0.08
XVZBT8		38.73	1.22	0.95	39.25	1.71	1.29
YZTVD3		36.61	-0.90	-0.70	36.45	-1.09	-0.82
ZHH2X8		38.09	0.58	0.45	37.97	0.42	0.32

Summary Statistics		
	Sample K91	Sample K92
Grand Means	37.508 MPa	37.545 MPa
Std Dev Btwn Labs	1.286 MPa	1.327 MPa
Statistics based on 44 of 47 reporting participants		

Sample K91: HIPS & Sample K92: HIPS

Comments on Assigned Data Flags for Test #737

- MH93JW (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample K92.
- KGNA3 (X) - Data for sample K91 are low. Inconsistent within the determinations of both samples.
- PN6LWB (X) - Extreme data.



Plastics Interlaboratory Testing Program

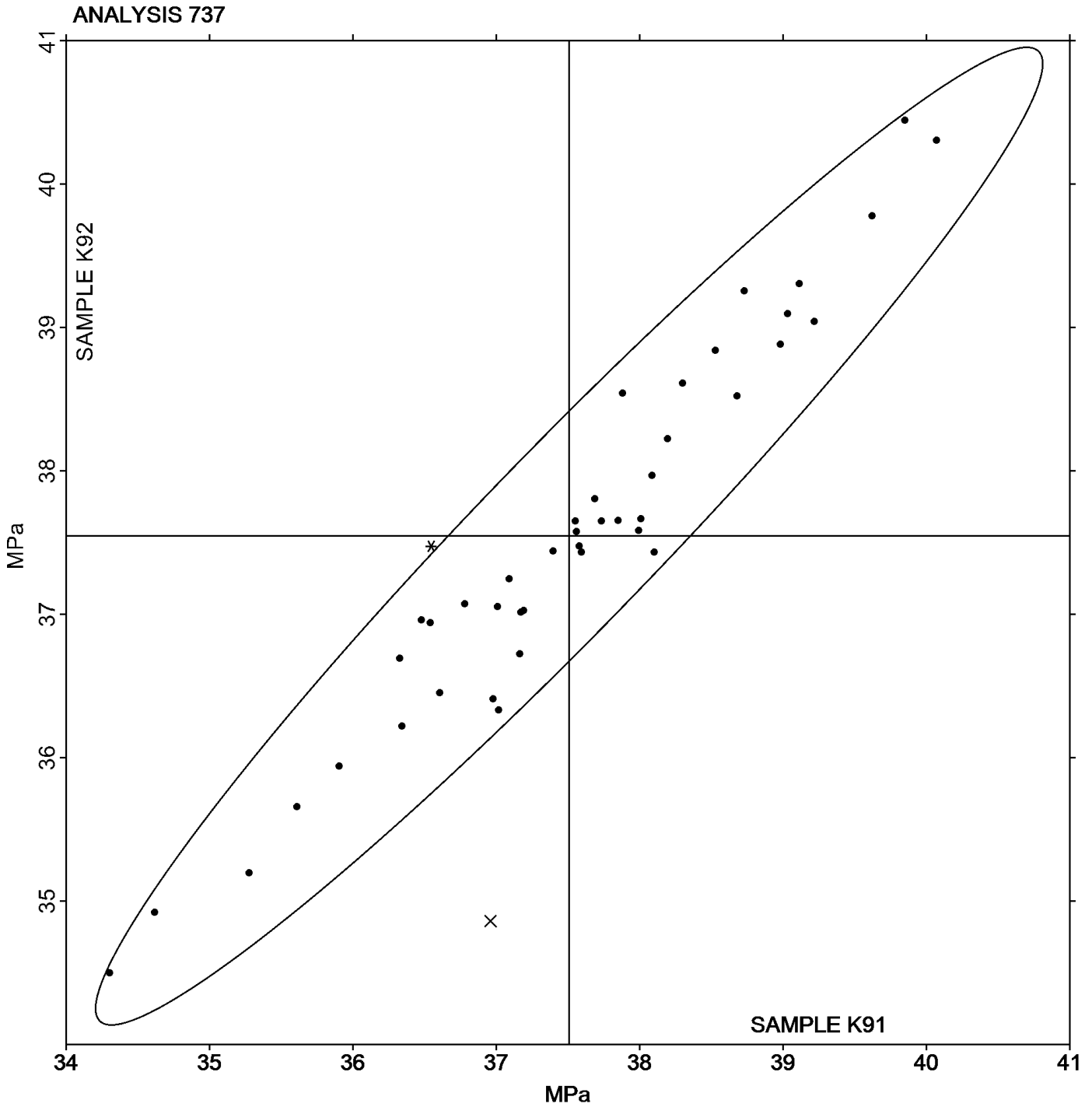
Report #126

Analysis 737

2nd Qtr 2023

Flexural Stress at 3.5% Strain - MPa

Grand Mean Sample K91: 37.508 MPa Grand Mean Sample K92: 37.545 MPa





Plastics Interlaboratory Testing Program

Report #126

Analysis 738

2nd Qtr 2023

Flexural Stress at Yield - MPa

WebCode	Data Flag	Sample K91			Sample K92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
3EW7UK		38.77	1.22	0.98	38.63	1.02	0.81
6AXQYU		38.57	1.02	0.82	39.12	1.51	1.20
7HLF3V		38.56	1.01	0.81	38.50	0.88	0.70
8JUV92		38.00	0.45	0.36	38.96	1.35	1.07
8WA873		39.01	1.46	1.18	38.93	1.32	1.05
9263MG	X	32.00	-5.55	-4.46	31.67	-5.95	-4.72
AHD7QD		37.87	0.32	0.26	38.04	0.43	0.34
ANJUB8		37.18	-0.37	-0.30	36.45	-1.16	-0.92
AVH3AF		34.72	-2.83	-2.27	35.08	-2.53	-2.01
BVGP4Y		36.81	-0.74	-0.59	37.14	-0.47	-0.38
CCWKTQ		38.08	0.53	0.43	37.78	0.17	0.13
D3HJPW		37.20	-0.35	-0.28	37.04	-0.58	-0.46
DANRCX		37.87	0.32	0.25	37.93	0.32	0.25
E3MPTH		38.37	0.82	0.66	38.39	0.77	0.61
E99APQ		40.12	2.57	2.06	40.35	2.74	2.18
EBV4UY		37.91	0.36	0.29	38.10	0.48	0.38
JNQ729		37.42	-0.13	-0.10	37.54	-0.07	-0.06
JZJPFE		36.34	-1.21	-0.97	36.70	-0.91	-0.72
KF49H9		35.56	-1.99	-1.60	35.44	-2.17	-1.72
KGNA3	X	31.76	-5.79	-4.65	34.80	-2.81	-2.23
KJRDK		39.22	1.67	1.34	39.44	1.83	1.45
M6K3RU		37.71	0.16	0.13	37.54	-0.08	-0.06
M8LH8R	X	7.99	-29.56	-23.76	8.51	-29.10	-23.09
MH93JW		37.12	-0.43	-0.35	36.94	-0.67	-0.53
NFZHL3		37.38	-0.17	-0.14	36.53	-1.08	-0.86
PAKRXL		36.61	-0.94	-0.76	37.56	-0.05	-0.04
PHF73X		35.70	-1.85	-1.49	35.76	-1.86	-1.47
PN6LWB		38.60	1.05	0.85	38.32	0.71	0.56
PPGETY		37.38	-0.17	-0.14	37.26	-0.35	-0.28
QJTQXT	X	48.80	11.25	9.04	48.80	11.19	8.88
QQABWY		37.18	-0.37	-0.29	37.38	-0.23	-0.18
RKFWKX	*	34.46	-3.09	-2.48	34.94	-2.67	-2.12
T2YAEF		38.18	0.63	0.51	37.80	0.19	0.15
VLZYME		38.82	1.27	1.02	38.64	1.03	0.82
WQQQDM		36.25	-1.30	-1.05	36.24	-1.37	-1.09



Plastics Interlaboratory Testing Program

Report #126

Analysis 738

2nd Qtr 2023

Flexural Stress at Yield - MPa

WebCode	Data Flag	Sample K91			Sample K92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
WTVUCK		37.55	0.00	0.00	37.65	0.04	0.03
XVZBT8		38.79	1.24	1.00	39.47	1.85	1.47
YZTVD3		36.69	-0.86	-0.69	36.67	-0.94	-0.75
ZHH2X8		38.23	0.68	0.55	38.16	0.54	0.43

Summary Statistics		
	Sample K91	Sample K92
Grand Means	37.550 MPa	37.611 MPa
Stnd Dev Btwn Labs	1.244 MPa	1.260 MPa
Statistics based on 35 of 39 reporting participants		

Sample K91: HIPS & Sample K92: HIPS

Comments on Assigned Data Flags for Test #738

- QJTQXT (X) - Data for both samples are high. Possible Systematic Error.
- KGNA3 (X) - Data for sample K91 are low. Inconsistent within the determinations of both samples.
- M8LH8R (X) - Extreme data.
- 9263MG (X) - Data for both samples are low. Possible Systematic Error.



Plastics Interlaboratory Testing Program

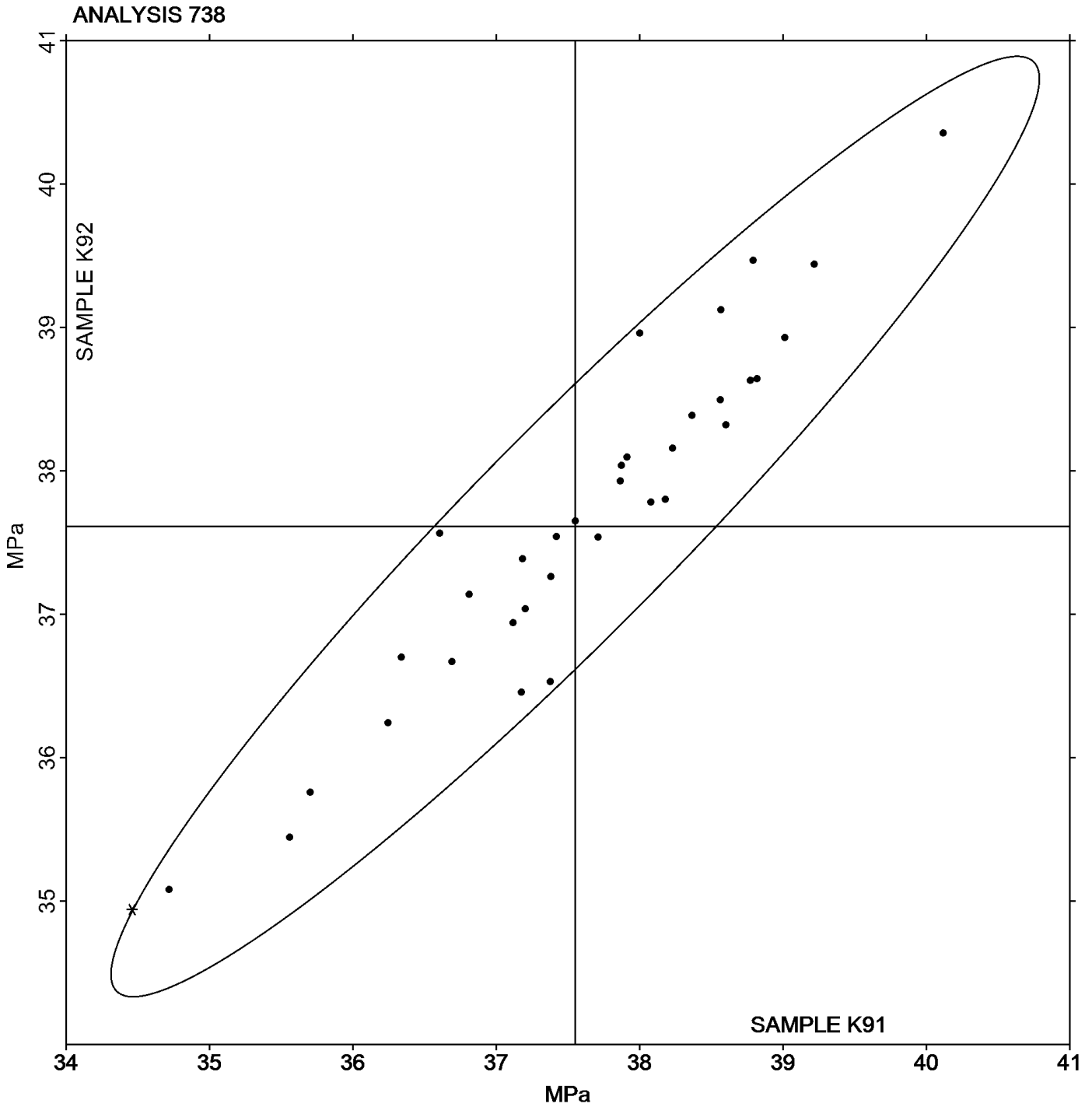
Report #126

Analysis 738

2nd Qtr 2023

Flexural Stress at Yield - MPa

Grand Mean Sample K91: 37.550 MPa Grand Mean Sample K92: 37.611 MPa





Plastics Interlaboratory Testing Program

Report #126

Analysis 750

2nd Qtr 2023

Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

WebCode	Data Flag	Sample X91			Sample X92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2JRCJ4		12.57	0.44	0.66	12.79	0.62	0.92	TO
2PGFKZ		11.50	-0.63	-0.93	12.20	0.03	0.04	KA
2V8M8E	X	18.25	6.12	9.08	15.07	2.90	4.33	TO
323MMN		13.25	1.12	1.66	13.40	1.23	1.83	CE
36TLKK		11.49	-0.63	-0.94	11.46	-0.72	-1.07	TO
3AWRFP	X	16.60	4.47	6.63	15.55	3.38	5.04	CE
3MRBML	X	13.39	1.26	1.86	12.33	0.15	0.23	XX
4CP93P		12.12	-0.01	-0.01	12.74	0.56	0.84	DY
4WW9ZB		11.75	-0.38	-0.56	11.82	-0.35	-0.53	TO
4YZZUA		11.65	-0.48	-0.72	11.76	-0.42	-0.62	TO
6AXQYU		12.45	0.32	0.48	12.25	0.08	0.12	WZ
6GE8R4		11.81	-0.32	-0.47	12.20	0.02	0.03	WZ
7DWYUC		11.61	-0.52	-0.77	11.45	-0.72	-1.08	TO
7E7GXU		11.73	-0.40	-0.60	12.35	0.18	0.26	GO
7FQUE7		12.30	0.17	0.26	11.95	-0.22	-0.33	WZ
7HLF3V		11.39	-0.74	-1.10	11.37	-0.81	-1.21	XX
88JBVZ		11.44	-0.69	-1.03	11.64	-0.54	-0.80	TO
8CADNJ		12.25	0.12	0.18	12.38	0.20	0.30	TO
8EJZ9X		11.25	-0.88	-1.30	11.39	-0.78	-1.17	TO
8WA873		11.52	-0.61	-0.90	11.54	-0.64	-0.95	DY
8ZM47K		13.00	0.87	1.29	12.60	0.43	0.64	WZ
9263MG	X	17.70	5.57	8.26	18.50	6.33	9.45	XX
9AL2PE		12.53	0.40	0.60	12.52	0.35	0.52	TO
AGAAW4	*	14.15	2.02	3.00	14.10	1.93	2.88	TO
AHD7QD		10.81	-1.32	-1.96	11.08	-1.10	-1.64	WZ
ANJUB8	X	13.80	1.67	2.48	12.65	0.48	0.71	WZ
AVH3AF		12.22	0.09	0.14	12.17	-0.01	-0.01	TO
B8PYJV		11.72	-0.41	-0.61	11.88	-0.30	-0.44	CE
BETEHW		12.25	0.12	0.17	12.13	-0.05	-0.07	TO
BVGP4Y		12.30	0.17	0.26	12.20	0.03	0.04	TO
C9CWBU	X	5.00	-7.13	-10.57	4.85	-7.32	-10.94	TO
D2UEHP	X	16.15	4.02	5.96	16.15	3.98	5.94	TO
D3HJPW		12.17	0.04	0.06	12.72	0.54	0.81	CE
D6YHHL	X	2.45	-9.68	-14.35	2.36	-9.82	-14.66	TM
E3MPTH	*	14.25	2.12	3.15	14.05	1.88	2.80	TO



Plastics Interlaboratory Testing Program

Report #126

Analysis 750

2nd Qtr 2023

Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

WebCode	Data Flag	Sample X91			Sample X92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
E99APQ		11.78	-0.35	-0.51	11.58	-0.60	-0.89	TO
EBV4UY		12.14	0.01	0.02	12.17	-0.01	-0.01	TO
GVW26Q		11.30	-0.82	-1.22	11.76	-0.41	-0.61	CE
GWUADA		12.62	0.49	0.73	12.62	0.45	0.67	KA
HABNP9		12.77	0.64	0.95	13.26	1.08	1.62	TO
HKQGHN		11.94	-0.19	-0.28	11.81	-0.36	-0.54	TO
JJVBJA		12.67	0.54	0.80	12.72	0.55	0.82	TO
JNQ729		12.15	0.02	0.03	12.05	-0.12	-0.18	TY
JVM22T		12.65	0.52	0.77	12.75	0.58	0.86	TO
JZJPFE		11.80	-0.33	-0.49	11.60	-0.57	-0.86	CE
KF49H9		11.50	-0.63	-0.93	11.15	-1.02	-1.53	CE
KGNA33		12.20	0.07	0.11	11.85	-0.32	-0.48	TO
KJRDKK		11.58	-0.55	-0.81	11.72	-0.45	-0.68	TO
KMBR3K		11.45	-0.67	-1.00	11.33	-0.85	-1.26	XX
LKG789		11.40	-0.73	-1.08	11.40	-0.77	-1.15	XX
M8LH8R	X	5.00	-7.13	-10.57	5.10	-7.07	-10.56	CE
M94TFD		13.22	1.09	1.62	13.47	1.29	1.93	TO
MGVZPP		11.79	-0.34	-0.50	11.71	-0.47	-0.70	TO
MH93JW		11.69	-0.44	-0.66	11.38	-0.79	-1.18	CE
MMKTBH		13.31	1.18	1.75	13.01	0.84	1.25	TO
MZBP9A		11.63	-0.50	-0.74	11.68	-0.50	-0.74	DY
NHQ9MT	X	11.70	-0.43	-0.63	13.00	0.83	1.24	TY
PCGDFX	X	12.30	0.17	0.26	11.20	-0.97	-1.45	WZ
PHF73X		11.94	-0.19	-0.28	11.92	-0.25	-0.38	DY
PL4DUL		11.98	-0.14	-0.21	11.40	-0.77	-1.15	TO
PN6LWB		11.25	-0.88	-1.30	11.40	-0.77	-1.15	KA
QMTTAV		13.45	1.32	1.96	13.00	0.83	1.24	TO
QQABWY		12.05	-0.08	-0.12	11.50	-0.68	-1.01	WZ
RCF37Q		11.19	-0.94	-1.40	11.53	-0.64	-0.96	TO
RKFWKX		12.11	-0.02	-0.03	12.27	0.10	0.14	GO
RQHTNN		12.10	-0.03	-0.04	12.25	0.08	0.12	WZ
RURKEH		11.65	-0.48	-0.71	12.20	0.03	0.04	XX
T2MZHG		12.35	0.22	0.33	12.30	0.13	0.19	XX
TJK8QM	X	15.40	3.27	4.86	15.47	3.29	4.92	TO
TNE6FE		12.22	0.09	0.14	12.59	0.42	0.63	DY



Plastics Interlaboratory Testing Program

Report #126

Analysis 750

2nd Qtr 2023

Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

WebCode	Data Flag	Sample X91			Sample X92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
UL3CRB		12.95	0.82	1.22	12.95	0.77	1.15	DY
VLZYME		12.16	0.03	0.04	11.74	-0.44	-0.65	WZ
VY7XWL	X	14.64	2.51	3.73	14.86	2.69	4.01	DY
WF6498		12.75	0.62	0.92	12.78	0.61	0.91	RR
WQQQDM		13.50	1.37	2.04	13.75	1.58	2.36	TO
WRKWWG	X	16.01	3.88	5.75	15.86	3.68	5.50	CE
WVLMZT		12.30	0.17	0.26	12.05	-0.12	-0.18	CE
XJGA72		12.58	0.45	0.66	12.57	0.40	0.59	TO
XKGU7T		12.13	0.00	0.00	12.17	0.00	0.00	TO
YZTVD3		12.10	-0.03	-0.04	12.30	0.13	0.19	TO
Z7CHLD		12.00	-0.13	-0.19	12.40	0.23	0.34	CE
Z8MP38		11.51	-0.62	-0.92	11.61	-0.56	-0.84	TO
ZDR4NP		12.45	0.32	0.48	12.55	0.38	0.56	TO
ZFGVV9		11.72	-0.41	-0.61	11.84	-0.33	-0.50	TO
ZGR8M4		11.61	-0.52	-0.77	12.13	-0.04	-0.06	XX

Summary Statistics		
	Sample X91	Sample X92
Grand Means	12.127 grams/10 mins	12.173 grams/10 mins
Stnd Dev Btwn Labs	0.674 grams/10 mins	0.670 grams/10 mins
Statistics based on 71 of 85 reporting participants		

Sample X91: PP & Sample X92: PP



Plastics Interlaboratory Testing Program

Report #126

Analysis 750

2nd Qtr 2023

Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

Comments on Assigned Data Flags for Test #750

- D2UEHP (X) - Data for both samples are high. Possible Systematic Error.
- VY7XWL (X) - Data for both samples are high. Possible Systematic Error.
- NHQ9MT (X) - Inconsistent in testing between samples.
- ANJUB8 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample X91.
- 2V8M8E (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample X91.
- PCGDFX (X) - Inconsistent in testing between samples.
- 3MRBML (X) - Inconsistent in testing between samples.
- D6YHHL (X) - Data for both samples are low.
- TJK8QM (X) - Data for both samples are high. Possible Systematic Error.
- WRKWWG (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample X92.
- M8LH8R (X) - Data for both samples are low.
- C9CWBU (X) - Data for both samples are low.
- 3AWRFP (X) - Data for both samples are high. Possible Systematic Error.
- 9263MG (X) - Data for both samples are high. Possible Systematic Error.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample X91			Sample X92			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Procedure A of ASTM D1238	12.230	0.597	0.10	12.273	0.641	0.10	35/40
Procedure B of ASTM D1238	11.989	0.681	-0.14	12.116	0.653	-0.06	17/21
Procedure A of ISO 1133	12.112	0.615	-0.02	12.102	0.552	-0.07	12/15
Procedure B of ISO 1133	12.200	1.267	0.07	12.165	1.160	-0.01	5/7

Key to Instrument Codes Reported by Participants

CE Ceast	DY Dynisco
GO Gottfert	KA Kayeness
RR Ray Ran	TM TMI
TO Tinius Olsen	TY Toyoseiki Seisakusho
WZ Zwick	XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

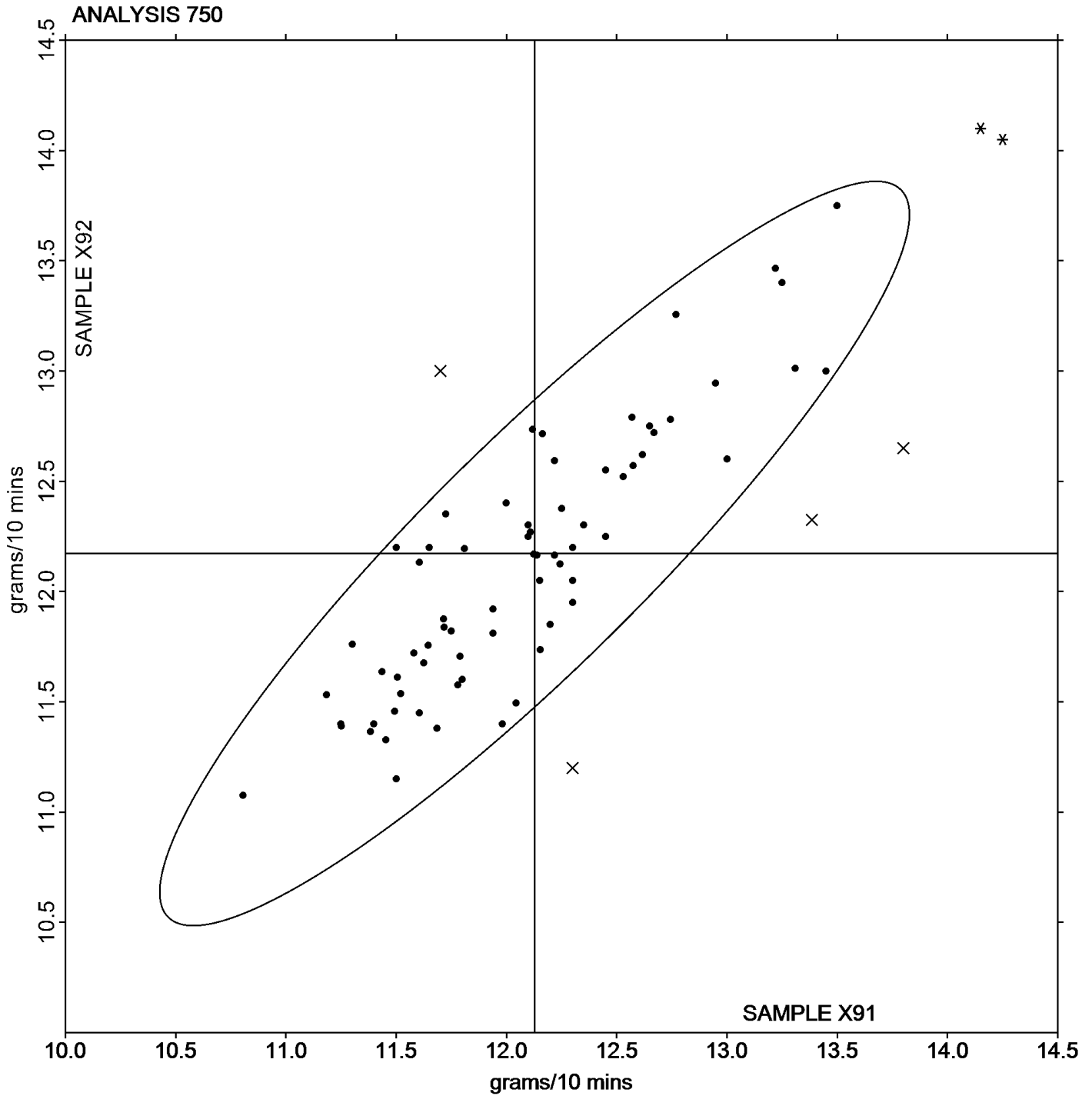
Analysis 750

Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

Report #126

2nd Qtr 2023

Grand Mean Sample X91: 12.127 grams/10 mins Grand Mean Sample X92: 12.173 grams/10 mins





Plastics Interlaboratory Testing Program

Report #126

Analysis 755

2nd Qtr 2023

Moisture Content of Plastics

WebCode	Data Flag	Sample Y91			Sample Y92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2KZLFG	*	0.05300	0.03374	2.81	0.04750	0.02845	2.25	MU
4CP93P		0.00543	-0.01383	-1.15	0.00377	-0.01529	-1.21	AZ
7FQUE7	*	0.05343	0.03417	2.85	0.05623	0.03718	2.95	BA
7HLF3V		0.01887	-0.00039	-0.03	0.01777	-0.00129	-0.10	MU
7NKY88		0.01333	-0.00593	-0.49	0.01733	-0.00172	-0.14	BA
7VU2PU		0.01850	-0.00076	-0.06	0.02550	0.00645	0.51	CT
8CADNJ	*	0.02450	0.00524	0.44	0.00750	-0.01155	-0.92	CT
8JUV92	*	0.01633	-0.00293	-0.24	0.00233	-0.01672	-1.32	CT
8ZM47K		0.00267	-0.01659	-1.38	0.00233	-0.01672	-1.32	MJ
AHD7QD		0.02650	0.00724	0.60	0.02950	0.01045	0.83	MU
ANJUB8		0.02633	0.00707	0.59	0.01967	0.00061	0.05	MU
AVH3AF		0.01050	-0.00876	-0.73	0.01350	-0.00555	-0.44	AZ
CMCXNV		0.01333	-0.00593	-0.49	0.01467	-0.00439	-0.35	XX
D2UEHP		0.01433	-0.00493	-0.41	0.01400	-0.00505	-0.40	ML
DY6ALC		0.01050	-0.00876	-0.73	0.01350	-0.00555	-0.44	MU
EU9QF8		0.00800	-0.01126	-0.94	0.00667	-0.01239	-0.98	CT
HKQGHN		0.01867	-0.00059	-0.05	0.01733	-0.00172	-0.14	BA
JJVBJA		0.01700	-0.00226	-0.19	0.02633	0.00728	0.58	CT
JZJPFE		0.02500	0.00574	0.48	0.03000	0.01095	0.87	MU
KF49H9		0.03867	0.01941	1.62	0.03867	0.01961	1.55	MU
KGNAX3		0.02033	0.00107	0.09	0.00833	-0.01072	-0.85	MU
LKG789		0.01240	-0.00686	-0.57	0.01290	-0.00615	-0.49	MK
M8LH8R		0.00590	-0.01336	-1.11	0.00587	-0.01319	-1.04	CT
MZBP9A		0.01201	-0.00725	-0.60	0.01122	-0.00783	-0.62	XX
NZN7UA		0.02500	0.00574	0.48	0.02600	0.00695	0.55	SA
PAKRXL		0.03600	0.01674	1.39	0.03767	0.01861	1.48	CT
PHH24C		0.01317	-0.00609	-0.51	0.01360	-0.00545	-0.43	CS
PL4DUL		0.02460	0.00534	0.44	0.02570	0.00665	0.53	ML
PN6LWB		0.01000	-0.00926	-0.77	0.01000	-0.00905	-0.72	MU
QHTJ3A		0.02750	0.00824	0.69	0.02850	0.00945	0.75	SB
QJTQXT		0.01067	-0.00859	-0.72	0.01133	-0.00772	-0.61	AZ
QMTTAV		0.01750	-0.00176	-0.15	0.02150	0.00245	0.19	XX
UL3CRB		0.02343	0.00417	0.35	0.02623	0.00718	0.57	BA
VLZYME		0.01030	-0.00896	-0.75	0.01543	-0.00362	-0.29	AZ
VP2GTG		0.00600	-0.01326	-1.10	0.00633	-0.01272	-1.01	AZ



Plastics Interlaboratory Testing Program

Report #126

Analysis 755

2nd Qtr 2023

Moisture Content of Plastics

WebCode	Data Flag	Sample Y91			Sample Y92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
XJGA72		0.03400	0.01474	1.23	0.03267	0.01361	1.08	CT
ZBJHRW		0.00897	-0.01029	-0.86	0.00753	-0.01152	-0.91	AZ

Summary Statistics		Sample Y91		Sample Y92	
Grand Means		0.019262	Percent	0.019052	Percent
Std Dev Btwn Labs		0.012004	Percent	0.012618	Percent
Statistics based on 37 of 37 reporting participants					

Sample Y91: HIPS & Sample Y92: HIPS

Results by Methodology (as reported by laboratory)

Test Methodology	Sample Y91 <i>HIPS</i>			Sample Y92 <i>HIPS</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
ASTM D6869	0.017133	0.011899	-0.0021	0.016019	0.012257	-0.0030	7/7
ISO 15512 Method B	0.017983	0.006191	-0.0013	0.016083	0.003170	-0.0030	4/4
ASTM D6980	0.023362	0.012607	0.0041	0.024536	0.011830	0.0055	13/13
ASTM D7191	0.009964	0.004500	-0.0093	0.009170	0.004504	-0.0099	7/7

Key to Instrument Codes Reported by Participants

AZ Arizona Instruments Moisture Analyzer	BA Brabender Aquatrac
CS Cosa Instruments	CT Computrac Moisture Analyzer
MJ Mitsubishi KF Analyzer Series	MK Mitsubishi KF Analyzer CA
ML Metrohm Coulometer	MU Mettler Toledo
SA Sartorius MA30	SB Sartorius Mark 3
XX Instrument manufacturer not specified by lab	



Plastics Interlaboratory Testing Program

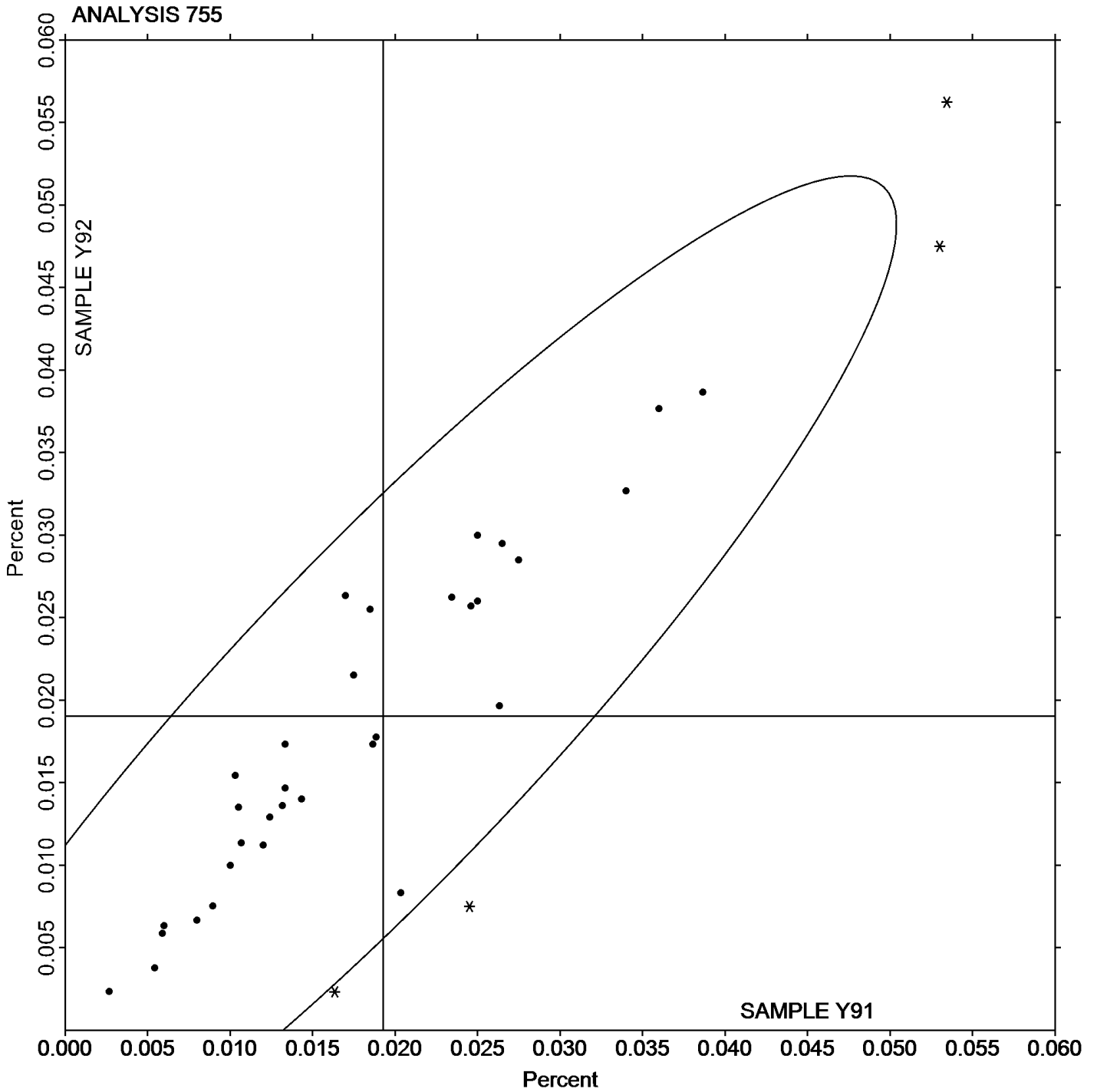
Analysis 755

Moisture Content of Plastics

Report #126

2nd Qtr 2023

Grand Mean Sample Y91: 0.01926 Percent Grand Mean Sample Y92: 0.01905 Percent





Plastics Interlaboratory Testing Program

Report #126

Analysis 757

2nd Qtr 2023

Ash Content in Thermoplastics - Percent

WebCode	Data Flag	Sample L91			Sample L92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
3MRBML		29.645	-0.026	-0.16	29.590	-0.110	-1.40
6AXQYU		29.600	-0.071	-0.44	29.670	-0.030	-0.38
6GE8R4		29.725	0.054	0.33	29.870	0.170	2.17
7E7GXU		29.770	0.099	0.61	29.765	0.065	0.83
7FQUE7	X	29.360	-0.311	-1.94	29.275	-0.425	-5.42
7HLF3V		29.670	-0.001	-0.01	29.811	0.111	1.42
7VU2PU		29.490	-0.181	-1.13	29.615	-0.085	-1.08
8CADNJ	X	29.800	0.129	0.80	29.050	-0.650	-8.28
8JUV92		29.885	0.214	1.33	29.735	0.035	0.45
8ZM47K		29.685	0.014	0.09	29.735	0.035	0.45
9QTV69		29.803	0.132	0.82	29.736	0.036	0.46
A96CUZ		29.730	0.059	0.37	29.720	0.020	0.26
AHD7QD		29.655	-0.016	-0.10	29.650	-0.050	-0.64
ANJUB8		29.785	0.114	0.71	29.650	-0.050	-0.64
AVH3AF		29.690	0.019	0.12	29.735	0.035	0.45
B9Y7LN		29.670	-0.001	-0.01	29.605	-0.095	-1.21
BVGP4Y		29.730	0.059	0.37	29.770	0.070	0.89
C9CWBU	X	29.220	-0.451	-2.81	30.170	0.470	5.99
CCWKTQ		29.760	0.089	0.55	29.750	0.050	0.64
D2UEHP		29.760	0.089	0.55	29.600	-0.100	-1.27
D846VQ		29.700	0.029	0.18	29.750	0.050	0.64
DMCTR4		29.688	0.017	0.10	29.794	0.094	1.20
E3MPH		29.700	0.029	0.18	29.650	-0.050	-0.64
E99APQ		29.775	0.104	0.65	29.695	-0.005	-0.06
EBV4UY		29.750	0.079	0.49	29.775	0.075	0.96
F8AYCF		29.860	0.189	1.17	29.810	0.110	1.40
GCKCRT	X	30.921	1.249	7.78	31.308	1.608	20.50
GWUADA		29.710	0.039	0.24	29.765	0.065	0.83
JJVBJA		29.470	-0.201	-1.25	29.580	-0.120	-1.53
JNQJUQ		29.705	0.034	0.21	29.675	-0.025	-0.32
JZJPFE		29.725	0.054	0.33	29.680	-0.020	-0.25
KGNA3		29.700	0.029	0.18	29.720	0.020	0.26
KJRDK	*	29.455	-0.216	-1.35	29.495	-0.205	-2.61
MH93JW		29.665	-0.006	-0.04	29.680	-0.020	-0.25
MM3WK4	*	29.300	-0.371	-2.31	29.700	0.000	0.00



Plastics Interlaboratory Testing Program

Report #126

Analysis 757

2nd Qtr 2023

Ash Content in Thermoplastics - Percent

WebCode	Data Flag	Sample L91			Sample L92		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MZBP9A		29.695	0.024	0.15	29.720	0.020	0.26
NFZHL3		29.715	0.044	0.27	29.700	0.000	0.00
NJJ46V		29.771	0.099	0.62	29.711	0.011	0.14
PAKRXL	*	29.200	-0.471	-2.93	29.680	-0.020	-0.25
PHH24C		29.735	0.064	0.40	29.675	-0.025	-0.32
PL4DUL	*	29.655	-0.016	-0.10	29.475	-0.225	-2.87
PN6LWB		29.796	0.125	0.78	29.743	0.043	0.55
PPGETY	*	29.200	-0.471	-2.93	29.630	-0.070	-0.89
QJTQXT	X	30.184	0.513	3.19	30.167	0.467	5.95
QMTTAV	*	29.300	-0.371	-2.31	29.700	0.000	0.00
QQABWY		29.785	0.114	0.71	29.740	0.040	0.51
RKFWKX	X	29.225	-0.446	-2.78	29.770	0.070	0.89
RQHTNN		29.743	0.072	0.45	29.729	0.029	0.38
RURKEH		30.005	0.334	2.08	29.790	0.090	1.15
UL3CRB		29.648	-0.024	-0.15	29.620	-0.080	-1.02
ULMH43		29.755	0.084	0.52	29.680	-0.020	-0.25
VLZYME		29.410	-0.261	-1.63	29.630	-0.070	-0.89
VP2GTG	X	29.670	-0.001	-0.01	29.425	-0.275	-3.50
WF6498		29.770	0.099	0.61	29.800	0.100	1.28
XJGA72	X	29.585	-0.086	-0.54	32.990	3.290	41.94
XVZBT8		29.750	0.079	0.49	29.770	0.070	0.89
YZTVD3		29.775	0.104	0.65	29.765	0.065	0.83
ZDR4NP		29.685	0.014	0.09	29.750	0.050	0.64
ZGR8M4		29.589	-0.083	-0.52	29.609	-0.091	-1.16

Summary Statistics		
	Sample L91	Sample L92
Grand Means	29.6713 Percent	29.6999 Percent
Std Dev Btwn Labs	0.1606 Percent	0.0784 Percent
Statistics based on 51 of 59 reporting participants		

Sample L91: PBT & Sample L92: PBT



Plastics Interlaboratory Testing Program

Analysis 757

Ash Content in Thermoplastics - Percent

Report #126

2nd Qtr 2023

Comments on Assigned Data Flags for Test #757

- QJTQXT (X) - Data for both samples are high.
- 8CADNJ (X) - Data for sample L92 are low. Inconsistent within the determinations of sample L91.
- GCKCRT (X) - Data for both samples are high. Inconsistent within the determinations of both samples.
- RKFWKX (X) - Data for sample L91 are low. Inconsistent within the determinations of both samples.
- VP2GTG (X) - Data for sample L92 are low. Inconsistent within the determinations of sample L92.
- C9CWBU (X) - Data for sample L91 are low and data for sample L92 are high. Inconsistent within the determinations of sample L91.
- 7FQUE7 (X) - Data for sample L92 are low.
- XJGA72 (X) - Data for sample L92 are high. Inconsistent within the determinations of sample L92.



Plastics Interlaboratory Testing Program

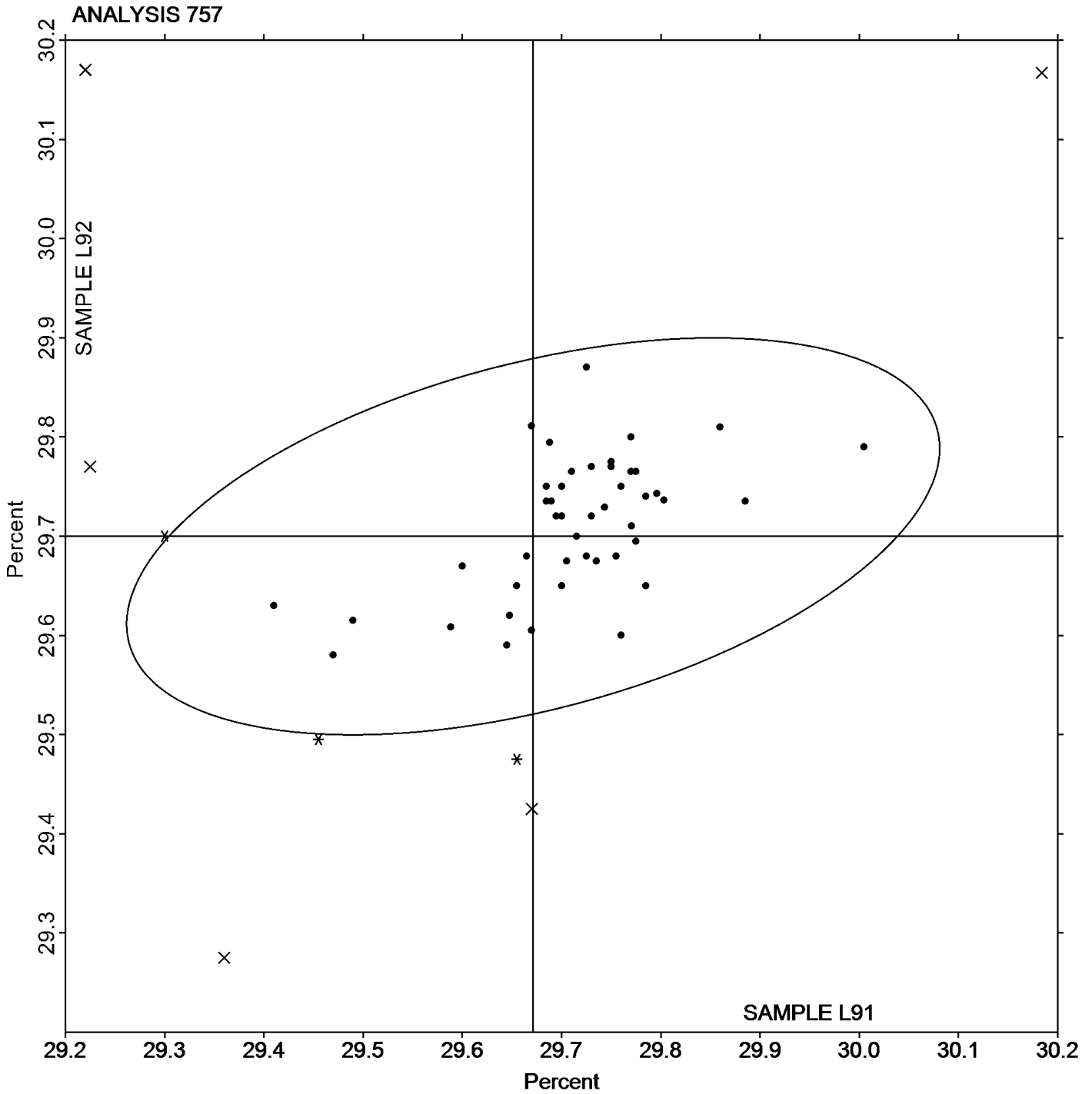
Analysis 757

Ash Content in Thermoplastics - Percent

Report #126

2nd Qtr 2023

Grand Mean Sample L91: 29.671 Percent Grand Mean Sample L92: 29.700 Percent





Plastics Interlaboratory Testing Program

Report #126

Analysis 758

2nd Qtr 2023

Thermogravimetric Analysis

WebCode	Data Flag	Sample A91			Sample A92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6AXQYU		78.71	0.09	0.05	79.70	0.45	0.79	TA
DANRCX		79.15	0.54	0.28	79.34	0.10	0.18	XX
GCKCRT	M	0.39	-78.22	-40.03	No data reported for this sample			PE
JVM22T		78.49	-0.12	-0.06	78.53	-0.72	-1.25	TA
JZJPFE		79.61	1.00	0.51	79.25	0.00	0.01	TA
MZBP9A		79.27	0.66	0.34	79.21	-0.03	-0.06	TA
PHF73X		77.96	-0.65	-0.33	77.98	-1.26	-2.19	TA
PL4DUL		79.11	0.50	0.25	79.72	0.48	0.83	TA
PN6LWB		79.61	1.00	0.51	79.66	0.41	0.72	TA
RKFWKX		73.01	-5.61	-2.87	79.23	-0.02	-0.03	XX
UJFNHV		79.93	1.32	0.68	79.07	-0.17	-0.30	TA
VYMNR7		79.88	1.26	0.65	79.99	0.74	1.29	TA

Summary Statistics		
	Sample A91	Sample A92
Grand Means	78.610 Percent	79.241 Percent
Std Dev Btwn Labs	1.954 Percent	0.575 Percent
Statistics based on 11 of 12 reporting participants		

Sample A91: PP & Sample A92: PP

Comments on Assigned Data Flags for Test #758

GCKCRT (M) - Participant did not submit data for sample A92.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample A91			Sample A92			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
ASTM D3850	79.170	0.676	0.56	79.465	0.644	0.22	4/5
ISO 11358	79.175	0.750	0.56	79.044	0.644	-0.20	5/5

Key to Instrument Codes Reported by Participants

- PE Perkins Elmer Instruments
- TA TA Instruments
- XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

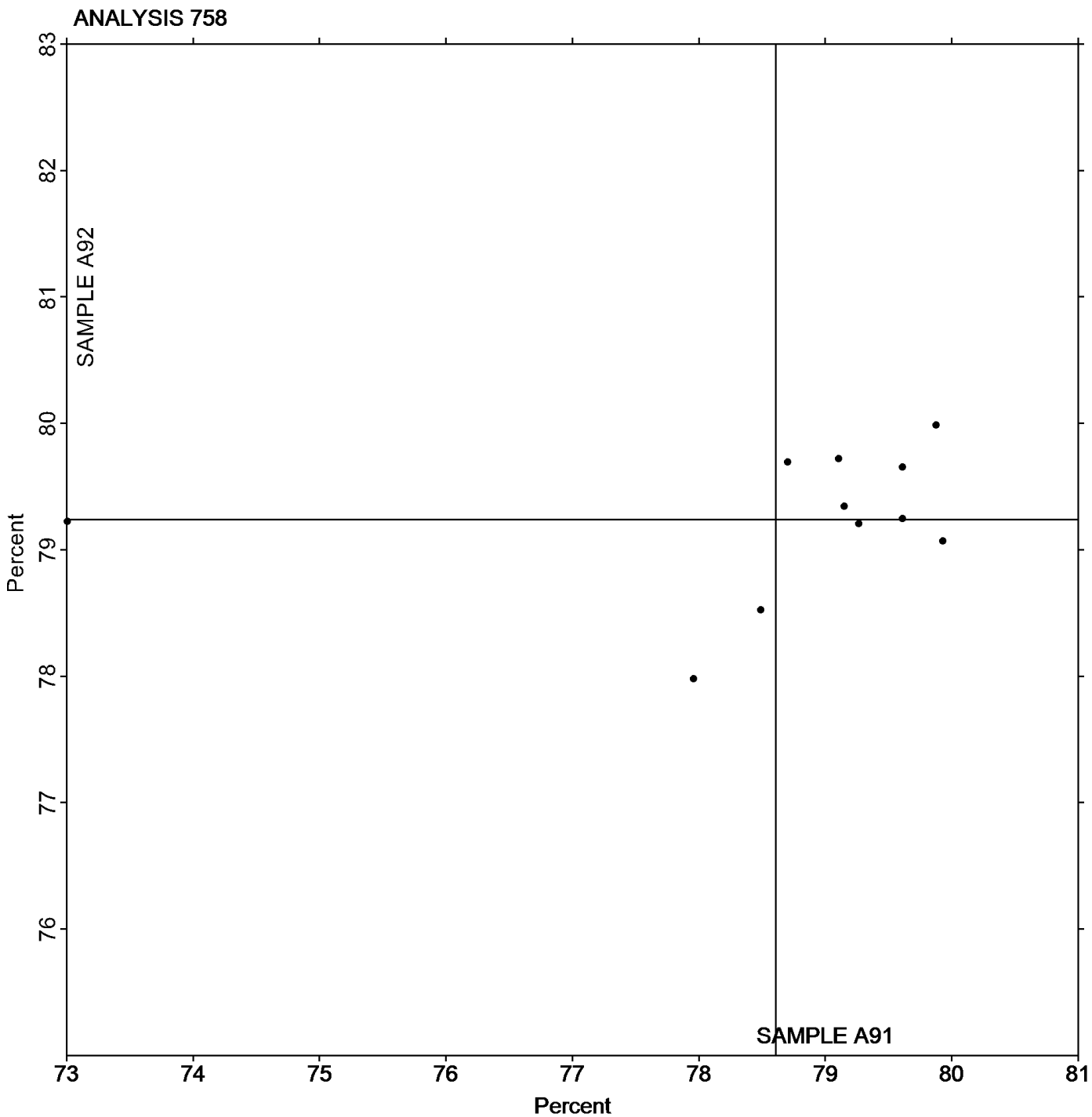
Analysis 758

Thermogravimetric Analysis

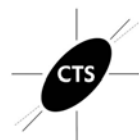
Report #126

2nd Qtr 2023

Grand Mean Sample A91: 78.610 Percent Grand Mean Sample A92: 79.241 Percent



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 760

2nd Qtr 2023

DSC Crystallization Temperature

WebCode	Data Flag	Sample W91			Sample W92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3AWRFP	*	175.63	2.85	0.68	178.97	5.71	1.31	MT
3MRBML		169.97	-2.81	-0.67	170.57	-2.68	-0.61	TA
6AXQYU		172.07	-0.71	-0.17	172.49	-0.77	-0.18	TA
6GE8R4		174.31	1.53	0.37	176.13	2.87	0.66	TA
6P8JKC	X	170.46	-2.32	-0.56	177.86	4.61	1.06	MT
7HLF3V		177.86	5.08	1.21	179.13	5.88	1.34	TA
7QC6KQ		172.90	0.12	0.03	172.63	-0.62	-0.14	TA
8JUV92		168.94	-3.84	-0.92	168.20	-5.06	-1.16	PE
8WA873		169.33	-3.45	-0.83	169.06	-4.19	-0.96	TA
9263MG		172.43	-0.35	-0.08	172.07	-1.19	-0.27	TA
B9Y7LN	M	176.20	3.42	0.82	No data reported for this sample			TA
CMCXNV		166.37	-6.42	-1.54	166.83	-6.42	-1.47	NZ
D3HJPW		168.16	-4.62	-1.11	169.74	-3.51	-0.80	TA
D4Y89H		175.59	2.81	0.67	175.77	2.52	0.58	TA
DANRCX		178.66	5.88	1.41	178.89	5.63	1.29	XX
H3P4HG		173.73	0.95	0.23	173.43	0.18	0.04	PE
JVM22T		170.27	-2.52	-0.60	170.93	-2.32	-0.53	TA
JZJPFE		166.90	-5.88	-1.41	167.53	-5.72	-1.31	NZ
MM3WK4		179.16	6.38	1.53	178.62	5.37	1.23	TA
MZBP9A		169.73	-3.05	-0.73	169.50	-3.75	-0.86	TA
NHQ9MT		181.43	8.65	2.07	181.67	8.41	1.93	SH
NL9BPR		166.72	-6.07	-1.45	167.73	-5.52	-1.26	TA
NLMZNX		173.84	1.06	0.25	173.98	0.73	0.17	TA
PHF73X		179.37	6.58	1.58	179.37	6.11	1.40	TA
QMTTAV		167.37	-5.42	-1.30	167.20	-6.05	-1.38	NZ
QQABWY		170.67	-2.12	-0.51	170.47	-2.79	-0.64	TA
RKFWKX		176.37	3.59	0.86	177.75	4.50	1.03	TA
TB9GFA	X	149.51	-23.27	-5.57	155.46	-17.80	-4.07	TA
U8HKKA		177.60	4.82	1.15	179.03	5.78	1.32	NZ
UJFNHV		175.86	3.08	0.74	176.62	3.37	0.77	TA
UL3CRB		169.57	-3.21	-0.77	169.32	-3.93	-0.90	XX
VFEYDU		169.23	-3.55	-0.85	169.43	-3.82	-0.87	PE
VLZYME		170.74	-2.04	-0.49	170.79	-2.46	-0.56	TA
VY7XWL		171.05	-1.73	-0.42	171.26	-1.99	-0.46	TA
VYMNR7		177.74	4.95	1.19	177.76	4.50	1.03	TA



Plastics Interlaboratory Testing Program

Report #126

Analysis 760

2nd Qtr 2023

DSC Crystallization Temperature

WebCode	Data Flag	Sample W91			Sample W92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
ZGR8M4		172.30	-0.48	-0.12	174.45	1.20	0.27	TA

Summary Statistics

	Sample W91	Sample W92
Grand Means	172.785 Degrees Celsius	173.253 Degrees Celsius
Std Dev Btwn Labs	4.178 Degrees Celsius	4.370 Degrees Celsius

Statistics based on 33 of 36 reporting participants

Sample W91: PBT & Sample W92: PBT

Comments on Assigned Data Flags for Test #760

- 6P8JKC (X) - Inconsistent in testing between samples.
- TB9GFA (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.
- B9Y7LN (M) - Participant did not submit data for sample W92.

Key to Instrument Codes Reported by Participants

MT Mettler Toledo Instruments	NZ Netzsch Instruments
PE Perkins Elmer Instruments	SH Shimadzu
TA TA Instruments	XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

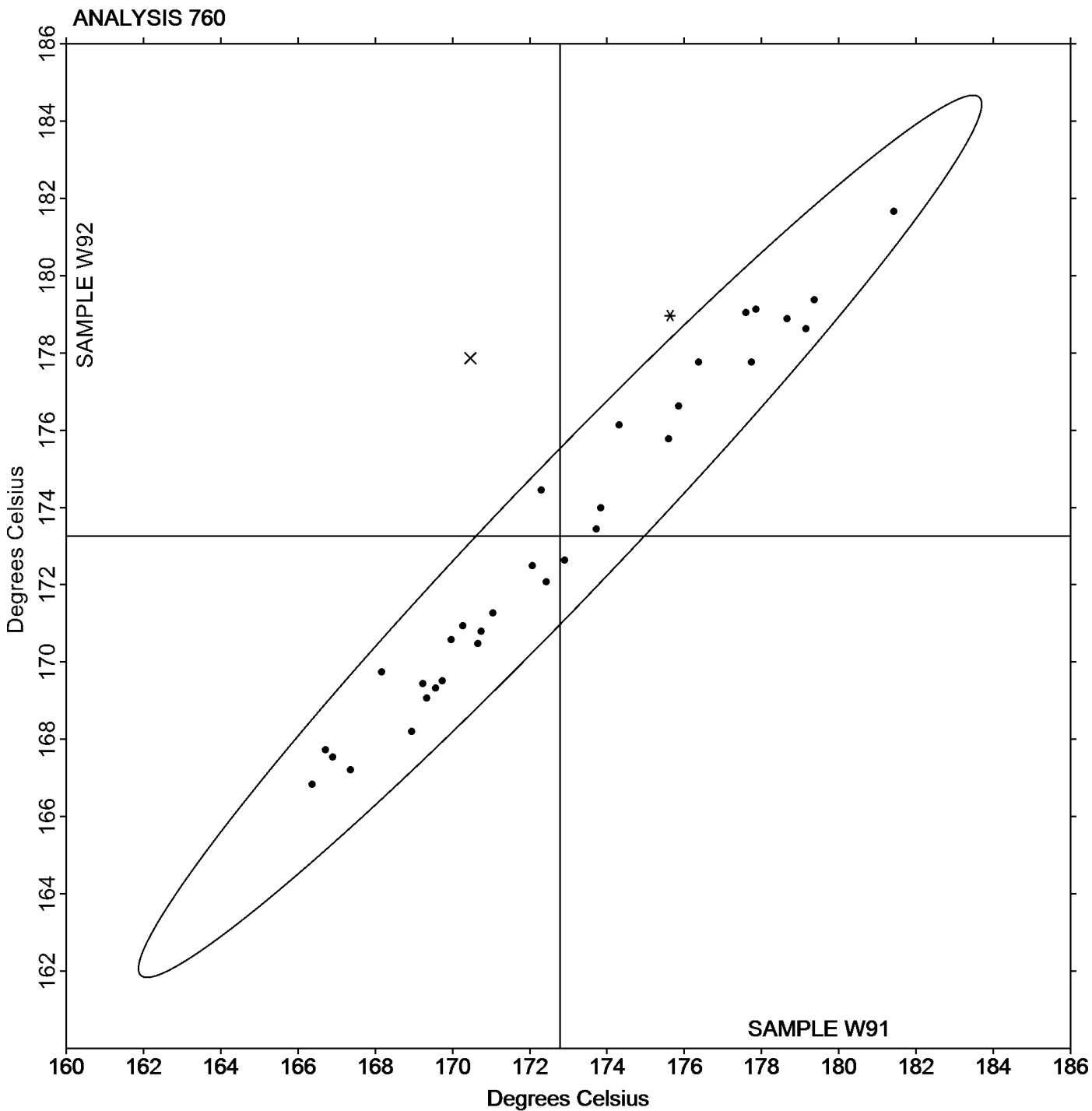
Analysis 760

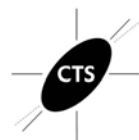
DSC Crystallization Temperature

Report #126

2nd Qtr 2023

Grand Mean Sample W91: 172.78 Degrees Celsius Grand Mean Sample W92: 173.25 Degrees Celsius





Plastics Interlaboratory Testing Program

Report #126

Analysis 761

2nd Qtr 2023

DSC Melt Temperature

WebCode	Data Flag	Sample W91			Sample W92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3MRBML		223.86	0.48	0.38	223.68	0.41	0.35	XX
6AXQYU		223.60	0.22	0.17	222.90	-0.37	-0.33	TA
6GE8R4		224.08	0.70	0.56	223.68	0.41	0.35	TA
6P8JKC		222.98	-0.40	-0.32	223.18	-0.09	-0.08	MT
7HLF3V		222.79	-0.59	-0.47	222.04	-1.23	-1.08	TA
7QC6KQ		222.43	-0.95	-0.76	222.70	-0.58	-0.50	TA
8JUV92	*	220.00	-3.38	-2.73	221.07	-2.21	-1.93	PE
8WA873		222.28	-1.10	-0.89	222.68	-0.60	-0.52	TA
9263MG		222.03	-1.35	-1.09	222.70	-0.58	-0.50	TA
B9Y7LN	M	223.60	0.22	0.18	No data reported for this sample			TA
CMCXNV		222.83	-0.55	-0.44	222.83	-0.44	-0.39	NZ
D3HJPW		225.42	2.04	1.65	224.80	1.52	1.33	TA
D4Y89H		223.48	0.10	0.08	223.29	0.01	0.01	TA
DANRCX		223.56	0.18	0.14	224.11	0.83	0.73	XX
F2349Z		223.70	0.32	0.26	224.13	0.86	0.75	TA
H3P4HG		224.40	1.02	0.82	224.70	1.42	1.24	XX
HKQGHN		221.49	-1.89	-1.53	221.33	-1.95	-1.70	TA
JVM22T		221.77	-1.61	-1.30	221.17	-2.11	-1.84	TA
JZJPFE		225.03	1.65	1.33	224.70	1.42	1.24	NZ
MM3WK4		223.55	0.17	0.14	224.51	1.23	1.07	TA
MZBP9A		223.43	0.05	0.04	223.36	0.08	0.07	TA
NHQ9MT		224.07	0.69	0.55	224.23	0.96	0.83	SH
NJJ46V		223.02	-0.36	-0.29	222.80	-0.47	-0.41	TA
NL9BPR		223.69	0.31	0.25	223.52	0.24	0.21	TA
NLMZNX		224.42	1.04	0.84	224.73	1.45	1.26	TA
PHF73X		222.53	-0.85	-0.68	222.37	-0.91	-0.80	TA
PL4DUL		224.98	1.60	1.29	224.29	1.01	0.88	TA
QMTTAV		223.93	0.55	0.45	223.57	0.29	0.25	NZ
QQABWY		222.77	-0.61	-0.50	222.50	-0.78	-0.68	TA
RKFWKX		221.49	-1.89	-1.53	221.99	-1.29	-1.13	TA
TB9GFA		224.96	1.58	1.27	223.97	0.69	0.60	TA
U8HKKA	*	220.80	-2.58	-2.08	220.33	-2.94	-2.57	NZ
UJFNHV		223.75	0.37	0.30	223.34	0.06	0.05	TA
UL3CRB		223.71	0.33	0.27	223.55	0.27	0.23	XX
VFEYDU		223.63	0.25	0.20	223.27	-0.01	-0.01	PE



Plastics Interlaboratory Testing Program

Report #126

Analysis 761

2nd Qtr 2023

DSC Melt Temperature

WebCode	Data Flag	<u>Sample W91</u>			<u>Sample W92</u>			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
VLZYME		224.27	0.89	0.72	224.32	1.04	0.91	TA
VP2GTG	X	238.33	14.95	12.07	226.33	3.06	2.67	XX
VY7XWL		225.11	1.73	1.40	224.58	1.30	1.13	TA
VYMNR7		223.49	0.11	0.09	222.65	-0.63	-0.55	TA
ZGR8M4		225.12	1.74	1.40	225.02	1.74	1.52	XX

Summary Statistics		
	<u>Sample W91</u>	<u>Sample W92</u>
Grand Means	223.381 Degrees Celsius	223.278 Degrees Celsius
Stnd Dev Btwn Labs	1.239 Degrees Celsius	1.146 Degrees Celsius
Statistics based on 38 of 40 reporting participants		

Sample W91: PBT & Sample W92: PBT

Comments on Assigned Data Flags for Test #761

B9Y7LN (M) - Participant did not submit data for sample W92.

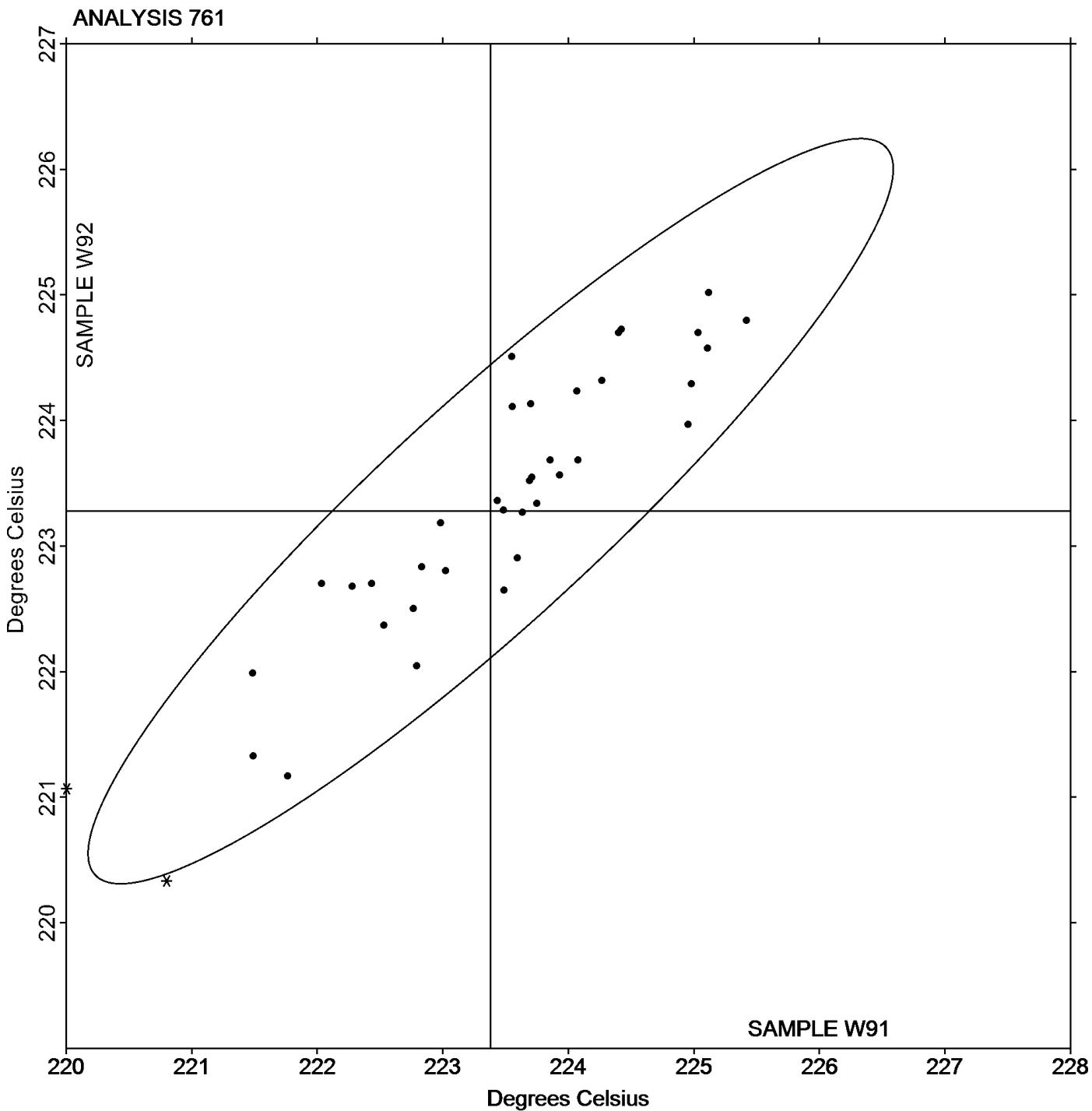
VP2GTG (X) - Data for sample W91 are high. Inconsistent within the determinations of sample W91.

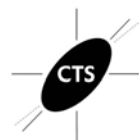
Key to Instrument Codes Reported by Participants

MT	Mettler Toledo Instruments	NZ	Netzsch Instruments
PE	Perkins Elmer Instruments	SH	Shimadzu
TA	TA Instruments	XX	Instrument manufacturer not specified by lab



Grand Mean Sample W91: 223.38 Degrees Celsius Grand Mean Sample W92: 223.28 Degrees Celsius





Plastics Interlaboratory Testing Program

Report #126

Analysis 762

2nd Qtr 2023

DSC Enthalpy of Crystallization

WebCode	Data Flag	Sample W91			Sample W92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6AXQYU		49.12	2.13	0.49	49.53	2.13	0.47	TA
6GE8R4		47.45	0.47	0.11	48.66	1.26	0.28	XX
6P8JKC		44.89	-2.10	-0.49	44.46	-2.94	-0.65	MT
7HLF3V		53.39	6.41	1.48	53.94	6.54	1.44	TA
8JUV92		40.27	-6.72	-1.55	42.32	-5.08	-1.12	PE
8WA873		46.51	-0.48	-0.11	46.66	-0.74	-0.16	TA
B9Y7LN	M	59.43	12.44	2.88	No data reported for this sample			TA
CMCXNV		45.77	-1.22	-0.28	45.29	-2.11	-0.47	NZ
D3HJPW		53.63	6.64	1.54	57.37	9.97	2.20	XX
D4Y89H		47.21	0.22	0.05	47.22	-0.18	-0.04	TA
DANRCX		54.18	7.20	1.66	53.73	6.33	1.40	XX
JVM22T		50.38	3.39	0.78	50.07	2.67	0.59	TA
JZJPFE		44.67	-2.32	-0.54	45.04	-2.36	-0.52	NZ
MZBP9A		49.13	2.15	0.50	49.34	1.94	0.43	TA
NHQ9MT		40.37	-6.61	-1.53	43.52	-3.88	-0.86	SH
NL9BPR		46.99	0.00	0.00	45.56	-1.84	-0.41	TA
NLMZNX		53.06	6.08	1.40	52.22	4.82	1.07	TA
PHF73X		53.03	6.05	1.40	53.27	5.87	1.30	TA
QMTTAV		42.97	-4.02	-0.93	44.13	-3.27	-0.72	NZ
QQABWY		47.96	0.97	0.22	48.46	1.06	0.23	TA
RKFWKX		50.13	3.14	0.73	49.41	2.01	0.44	TA
TB9GFA		43.07	-3.92	-0.91	41.55	-5.85	-1.29	TA
U8HKKA		52.36	5.38	1.24	54.20	6.80	1.50	NZ
UJFNHV		41.78	-5.20	-1.20	46.29	-1.11	-0.24	TA
UL3CRB		44.24	-2.75	-0.64	44.13	-3.27	-0.72	XX
VFEYDU		40.40	-6.59	-1.52	40.73	-6.67	-1.48	PE
VLZYME		44.14	-2.85	-0.66	44.17	-3.23	-0.71	TA
VY7XWL	*	43.46	-3.53	-0.82	39.12	-8.28	-1.83	TA
VYMNR7		45.08	-1.90	-0.44	46.85	-0.55	-0.12	TA



Plastics Interlaboratory Testing Program

Report #126

Analysis 762

2nd Qtr 2023

DSC Enthalpy of Crystallization

Summary Statistics		
	<u>Sample W91</u>	<u>Sample W92</u>
Grand Means	46.987 Joules Per Gram	47.401 Joules Per Gram
Stnd Dev Btwn Labs	4.326 Joules Per Gram	4.524 Joules Per Gram
Statistics based on 28 of 29 reporting participants		

Sample W91: PBT & Sample W92: PBT

Comments on Assigned Data Flags for Test #762

B9Y7LN (M) - Participant did not submit data for sample W92.

Key to Instrument Codes Reported by Participants

- | | | | |
|----|----------------------------|----|--|
| MT | Mettler Toledo Instruments | NZ | Netzsch Instruments |
| PE | Perkins Elmer Instruments | SH | Shimadzu |
| TA | TA Instruments | XX | Instrument manufacturer not specified by lab |



Plastics Interlaboratory Testing Program

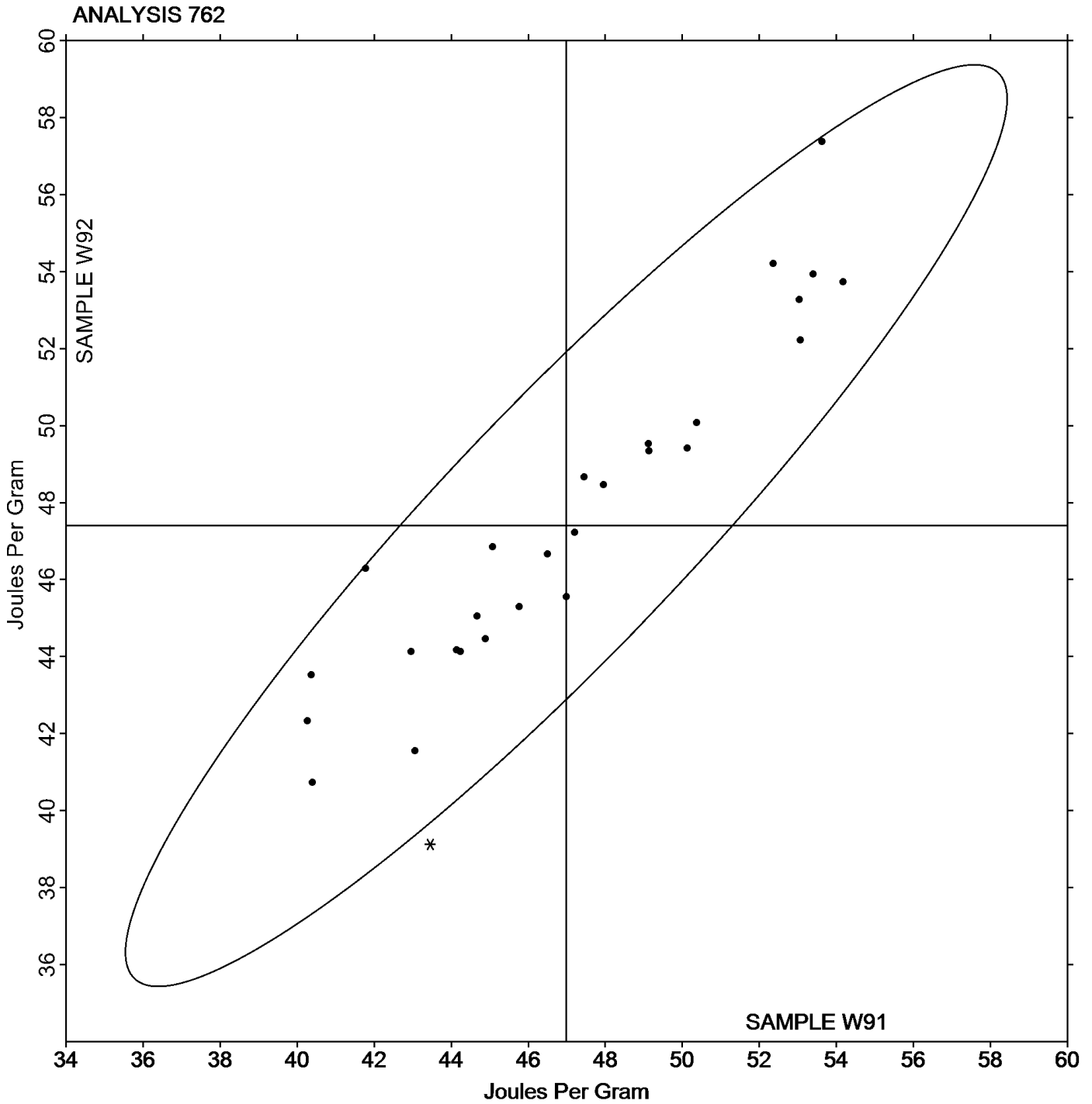
Analysis 762

DSC Enthalpy of Crystallization

Report #126

2nd Qtr 2023

Grand Mean Sample W91: 46.987 Joules Per Gram Grand Mean Sample W92: 47.401 Joules Per Gram





Plastics Interlaboratory Testing Program

Report #126

Analysis 763

2nd Qtr 2023

DSC Enthalpy of Fusion

WebCode	Data Flag	Sample W91			Sample W92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6AXQYU		46.63	4.55	0.77	47.59	4.75	0.83	TA
6GE8R4		49.85	7.77	1.31	51.30	8.46	1.49	XX
6P8JKC		36.65	-5.43	-0.92	40.42	-2.42	-0.43	MT
7HLF3V		54.89	12.81	2.16	54.68	11.84	2.08	TA
8JUV92		40.23	-1.85	-0.31	42.33	-0.51	-0.09	PE
8WA873		42.02	-0.06	-0.01	42.81	-0.03	-0.01	TA
97MWPE		40.21	-1.87	-0.32	40.51	-2.33	-0.41	NZ
B9Y7LN	M	51.60	9.52	1.61	No data reported for this sample			TA
CMCXNV		39.00	-3.08	-0.52	40.45	-2.39	-0.42	NZ
D3HJPW		42.21	0.13	0.02	44.80	1.96	0.35	TA
D4Y89H		39.87	-2.21	-0.37	40.56	-2.28	-0.40	TA
DANRCX		47.63	5.55	0.94	46.57	3.73	0.66	XX
F2349Z		46.68	4.60	0.78	47.62	4.78	0.84	TA
JVM22T		42.74	0.66	0.11	42.81	-0.03	-0.01	TA
JZJPFE		38.79	-3.29	-0.56	39.79	-3.05	-0.54	NZ
MZBP9A		48.51	6.43	1.09	48.81	5.97	1.05	TA
NHQ9MT		31.54	-10.54	-1.78	33.65	-9.19	-1.61	SH
NL9BPR		37.45	-4.63	-0.78	35.25	-7.59	-1.33	TA
NLMZNX	X	43.20	1.12	0.19	52.37	9.54	1.68	TA
PHF73X		49.70	7.62	1.29	50.07	7.23	1.27	TA
QMTTAV		34.87	-7.21	-1.22	35.47	-7.37	-1.30	NZ
QQABWY		40.90	-1.18	-0.20	40.75	-2.09	-0.37	TA
RKFWKX		36.23	-5.85	-0.99	35.70	-7.14	-1.25	TA
TB9GFA		46.31	4.23	0.72	45.01	2.17	0.38	TA
U8HKKA		53.13	11.05	1.87	55.86	13.02	2.29	NZ
UJFNHV		36.47	-5.61	-0.95	40.93	-1.91	-0.34	TA
UL3CRB		42.88	0.80	0.14	43.00	0.16	0.03	XX
VFEYDU		36.84	-5.24	-0.89	38.57	-4.27	-0.75	PE
VLZYME		37.57	-4.51	-0.76	37.65	-5.19	-0.91	TA
VY7XWL	*	46.38	4.30	0.73	42.65	-0.19	-0.03	TA
VYMNR7		34.11	-7.97	-1.35	36.72	-6.12	-1.08	TA



Plastics Interlaboratory Testing Program

Report #126

Analysis 763

2nd Qtr 2023

DSC Enthalpy of Fusion

Summary Statistics

	<u>Sample W91</u>	<u>Sample W92</u>
Grand Means	42.079 Joules Per Gram	42.839 Joules Per Gram
Stnd Dev Btwn Labs	5.918 Joules Per Gram	5.691 Joules Per Gram

Statistics based on 29 of 31 reporting participants

Sample W91: PBT & Sample W92: PBT

Comments on Assigned Data Flags for Test #763

NLMZNX (X) - Inconsistent in testing between samples.

B9Y7LN (M) - Participant did not submit data for sample W92.

Key to Instrument Codes Reported by Participants

MT Mettler Toledo Instruments

NZ Netzsch Instruments

PE Perkins Elmer Instruments

SH Shimadzu

TA TA Instruments

XX Instrument manufacturer not specified by lab



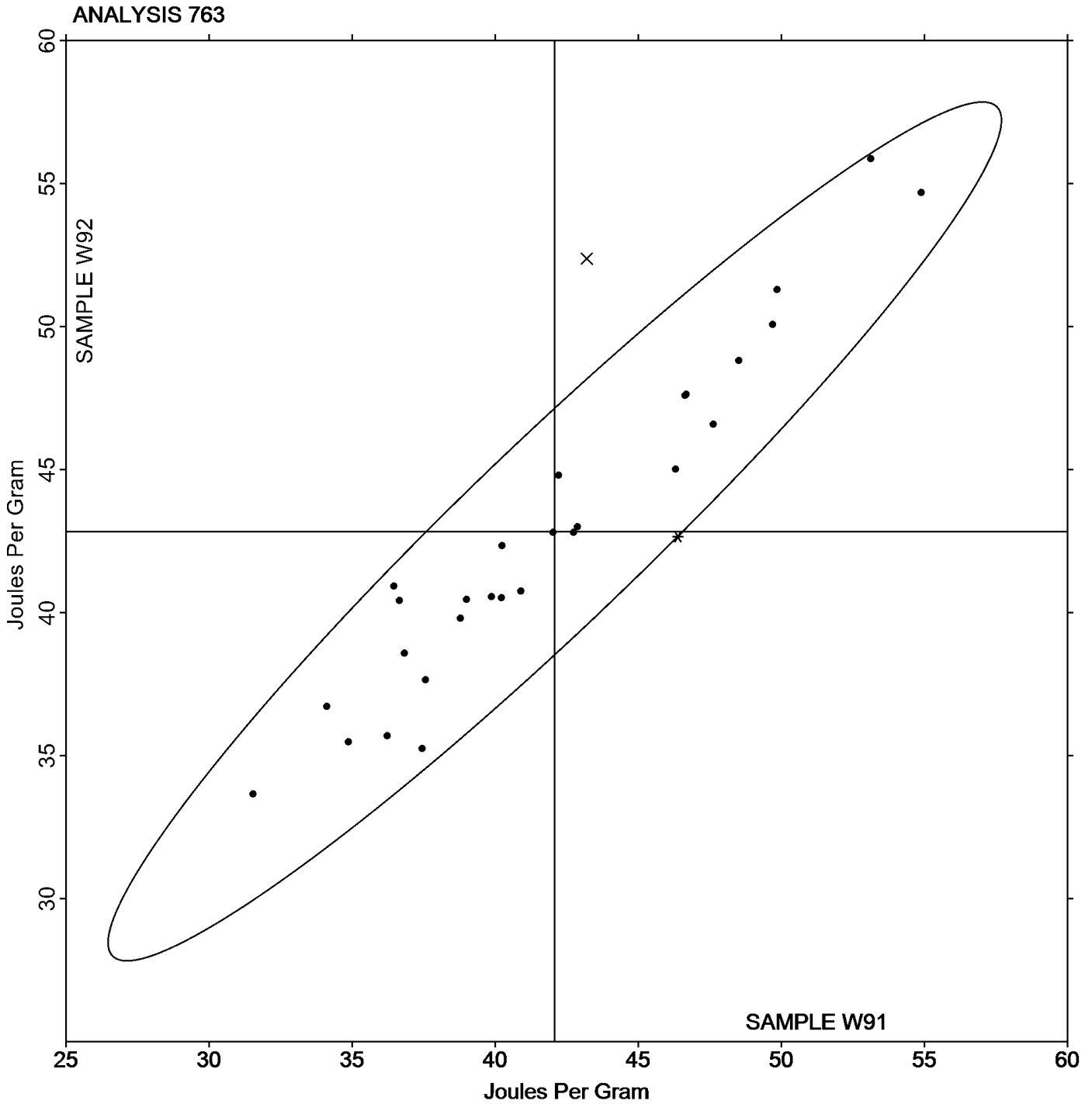
Plastics Interlaboratory Testing Program

Analysis 763 DSC Enthalpy of Fusion

Report #126

2nd Qtr 2023

Grand Mean Sample W91: 42.079 Joules Per Gram Grand Mean Sample W92: 42.839 Joules Per Gram





Plastics Interlaboratory Testing Program

Report #126

Analysis 764

2nd Qtr 2023

DSC Glass Transition Temperature

WebCode	Data Flag	Sample V91			Sample V92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6AXQYU		82.33	0.83	0.39	82.47	0.77	0.40	TA
6P8JKC		80.72	-0.78	-0.37	81.16	-0.54	-0.28	MT
7HLF3V	X	72.25	-9.25	-4.41	75.66	-6.04	-3.15	TA
8JUV92	*	74.80	-6.70	-3.20	75.78	-5.92	-3.08	PE
8WA873		81.21	-0.29	-0.14	81.05	-0.66	-0.34	TA
97MWPE		83.23	1.73	0.83	83.30	1.60	0.83	NZ
B9Y7LN		81.57	0.07	0.03	81.60	-0.10	-0.05	TA
CMCXNV		82.40	0.90	0.43	82.47	0.76	0.40	NZ
D3HJPW	X	83.30	1.80	0.86	81.85	0.15	0.08	TA
DANRCX		83.54	2.04	0.97	83.16	1.46	0.76	XX
DBDJ24		82.64	1.14	0.54	82.67	0.97	0.50	PE
F2349Z		82.10	0.60	0.29	82.17	0.46	0.24	TA
JVM22T		81.43	-0.07	-0.03	81.37	-0.34	-0.18	TA
JZJPFE		84.37	2.87	1.37	84.53	2.83	1.47	NZ
MZBP9A		80.50	-1.00	-0.48	80.45	-1.25	-0.65	TA
NHQ9MT	X	86.49	4.99	2.38	84.26	2.55	1.33	SH
NL9BPR		83.32	1.82	0.87	83.21	1.51	0.79	TA
NLMZNX		82.01	0.51	0.24	81.98	0.28	0.14	TA
PHF73X		81.20	-0.30	-0.14	81.77	0.06	0.03	TA
QMTTAV	*	83.70	2.20	1.05	84.53	2.83	1.47	NZ
QQABWY		82.50	1.00	0.48	82.53	0.83	0.43	TA
RKFWKX		82.14	0.64	0.30	82.45	0.74	0.39	TA
TB9GFA	X	70.54	-10.96	-5.23	69.22	-12.49	-6.50	TA
U8HKKA		76.33	-5.17	-2.47	76.90	-4.80	-2.50	NZ
UJFNHV		80.99	-0.51	-0.24	81.01	-0.69	-0.36	TA
UL3CRB		79.92	-1.58	-0.76	80.12	-1.58	-0.83	XX
VFEYDU		82.37	0.87	0.41	82.43	0.73	0.38	PE
VLZYME		79.93	-1.57	-0.75	80.83	-0.87	-0.45	TA
VY7XWL		82.81	1.31	0.62	82.61	0.91	0.47	TA
VYMNR7		80.98	-0.52	-0.25	81.76	0.06	0.03	TA



Plastics Interlaboratory Testing Program

Report #126

Analysis 764

2nd Qtr 2023

DSC Glass Transition Temperature

Summary Statistics		
	<u>Sample V91</u>	<u>Sample V92</u>
Grand Means	81.501 Degrees Celsius	81.705 Degrees Celsius
Stnd Dev Btwn Labs	2.095 Degrees Celsius	1.921 Degrees Celsius
Statistics based on 26 of 30 reporting participants		

Sample V91: PET & Sample V92: PET

Comments on Assigned Data Flags for Test #764

- NHQ9MT (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample V91.
- TB9GFA (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.
- 7HLF3V (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample V92.
- D3HJPW (X) - Inconsistent in testing between samples.

Key to Instrument Codes Reported by Participants

- | | | | |
|----|----------------------------|----|--|
| MT | Mettler Toledo Instruments | NZ | Netzsch Instruments |
| PE | Perkins Elmer Instruments | SH | Shimadzu |
| TA | TA Instruments | XX | Instrument manufacturer not specified by lab |



Plastics Interlaboratory Testing Program

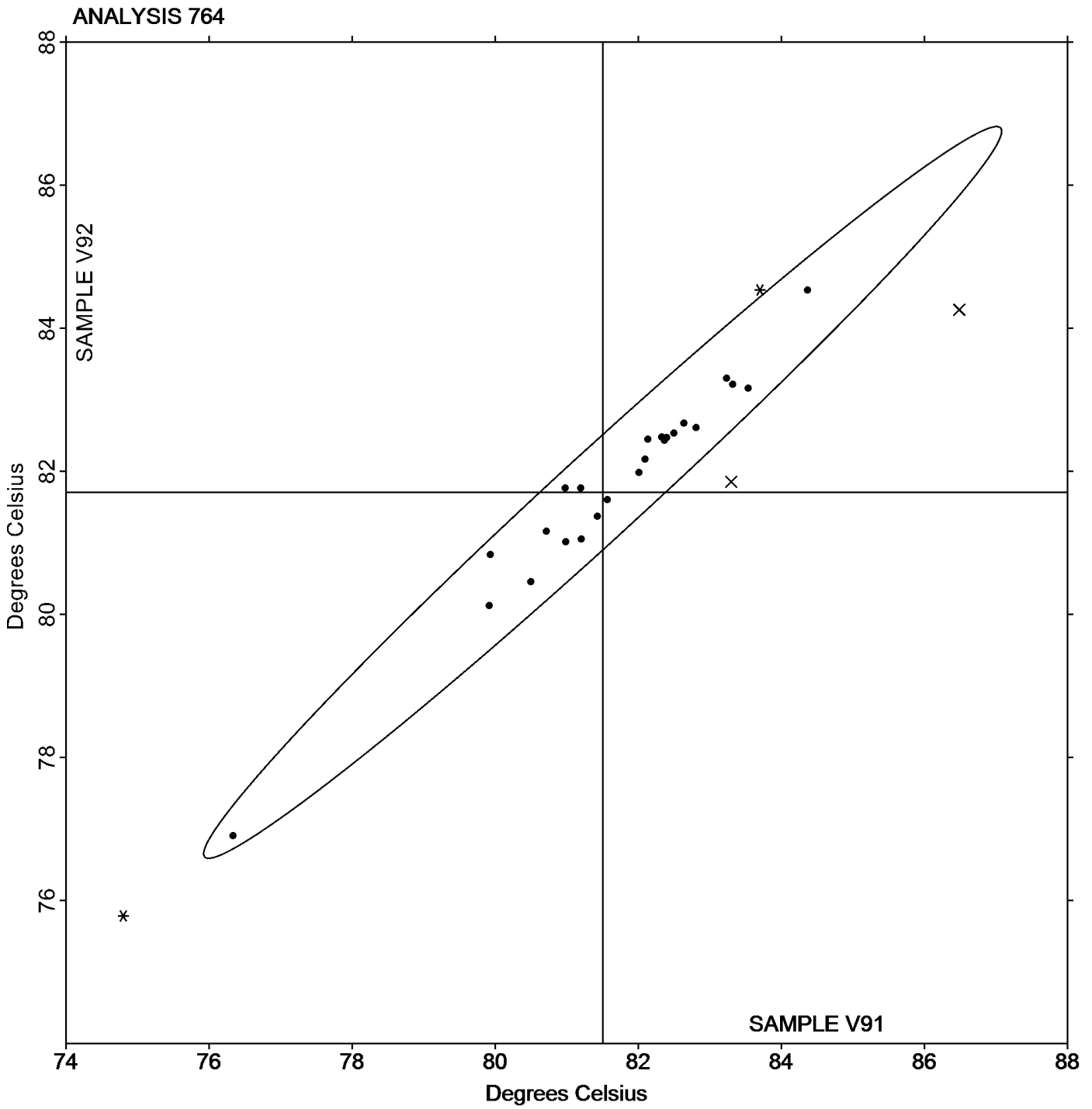
Analysis 764

DSC Glass Transition Temperature

Report #126

2nd Qtr 2023

Grand Mean Sample V91: 81.501 Degrees Celsius Grand Mean Sample V92: 81.705 Degrees Celsius





Plastics Interlaboratory Testing Program

Report #126

Analysis 765

2nd Qtr 2023

Research Crystallization Peak Temperature

WebCode	Data Flag	Sample W91			Sample W92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6AXQYU		172.07	0.97	0.12	172.49	0.70	0.11	TA
7HLF3V		177.86	6.76	0.85	179.13	7.34	1.12	XX
CMCXNV		166.37	-4.73	-0.59	166.83	-4.96	-0.76	NZ
JVM22T		170.83	-0.26	-0.03	171.23	-0.56	-0.08	XX
MZBP9A		169.73	-1.36	-0.17	169.50	-2.29	-0.35	TA
NZN7UA		176.19	5.09	0.64	176.12	4.33	0.66	MT
QJTQXT		172.70	1.60	0.20	171.57	-0.22	-0.03	TA
TB9GFA		149.51	-21.59	-2.71	155.46	-16.33	-2.49	TA
U8HKKA		173.20	2.10	0.26	172.97	1.18	0.18	NZ
UJFNHV		175.86	4.76	0.60	176.62	4.83	0.74	TA
VYMNR7		177.74	6.64	0.83	177.76	5.97	0.91	TA

Summary Statistics		
	Sample W91	Sample W92
Grand Means	171.096 Degrees Celsius	171.789 Degrees Celsius
Std Dev Btwn Labs	7.979 Degrees Celsius	6.560 Degrees Celsius
Statistics based on 11 of 11 reporting participants		

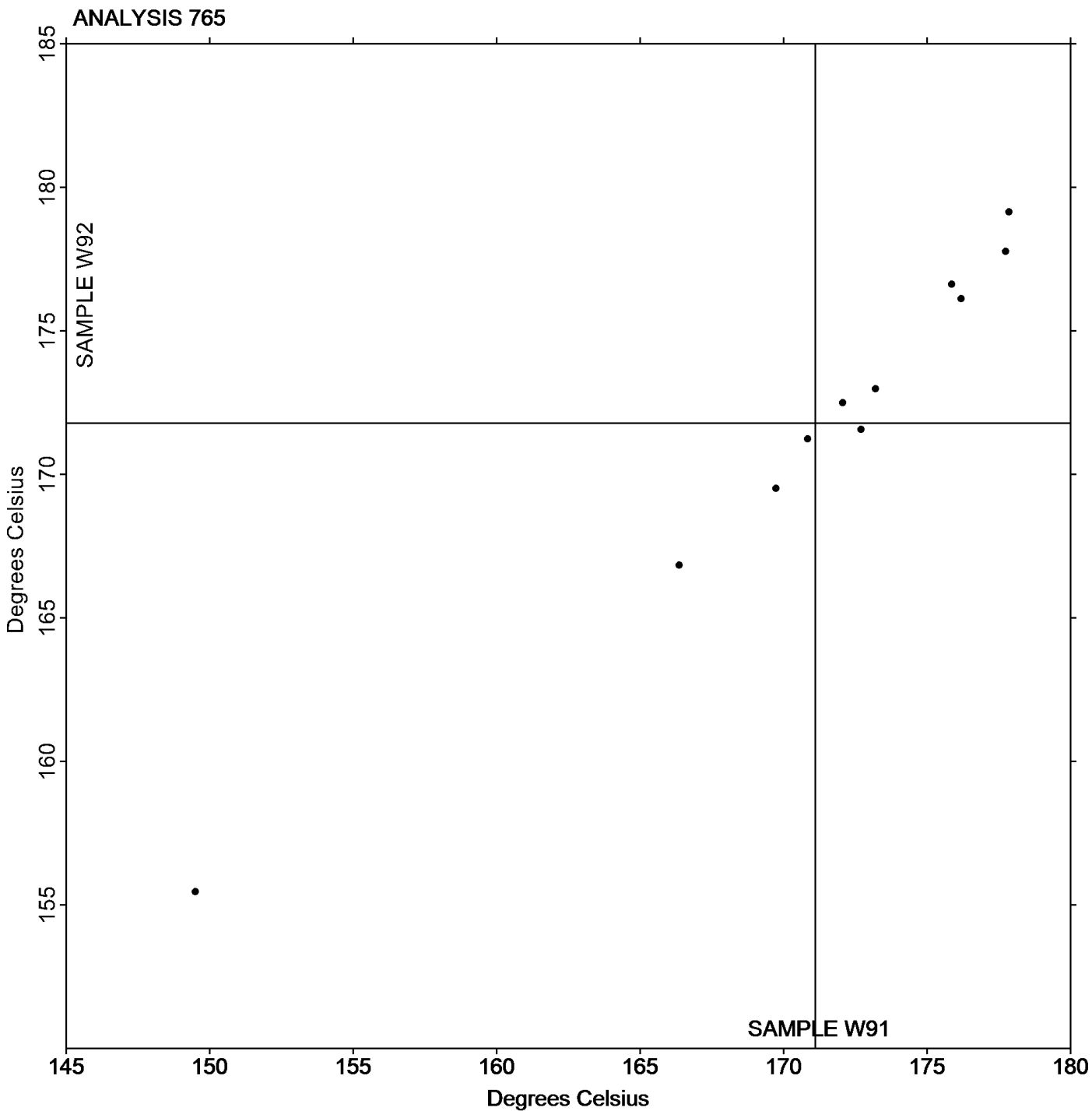
Sample W91: PBT & Sample W92: PBT

Key to Instrument Codes Reported by Participants

- MT Mettler Toledo Instruments
- TA TA Instruments
- NZ Netzsch Instruments
- XX Instrument manufacturer not specified by lab



Grand Mean Sample W91: 171.10 Degrees Celsius Grand Mean Sample W92: 171.79 Degrees Celsius



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 766

2nd Qtr 2023

Research Melting Peak Temperature

WebCode	Data Flag	Sample W91			Sample W92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6AXQYU		223.60	0.49	0.47	222.90	0.17	0.21	TA
7HLF3V		222.79	-0.32	-0.31	222.04	-0.69	-0.83	XX
CMCXNV		222.83	-0.28	-0.27	222.83	0.10	0.12	NZ
JVM22T		221.37	-1.74	-1.69	221.00	-1.73	-2.08	TA
MZBP9A		223.43	0.32	0.32	223.36	0.63	0.75	XX
NJJ46V		223.02	-0.09	-0.08	222.80	0.07	0.09	TA
NZN7UA		224.24	1.13	1.10	223.62	0.89	1.07	MT
QJTQXT		221.83	-1.28	-1.24	222.53	-0.20	-0.24	TA
TB9GFA		224.96	1.85	1.80	223.97	1.23	1.48	TA
U8HKKA		222.00	-1.11	-1.08	221.73	-1.00	-1.20	NZ
UJFNHV		223.75	0.64	0.62	223.34	0.61	0.73	XX
VYMNR7		223.48	0.37	0.36	222.65	-0.09	-0.10	TA

Summary Statistics

Grand Means

Sample W91
223.109 Degrees Celsius

Sample W92
222.732 Degrees Celsius

Std Dev Btwn Labs

1.029 Degrees Celsius

0.834 Degrees Celsius

Statistics based on 12 of 12 reporting participants

Sample W91: PBT & Sample W92: PBT

Key to Instrument Codes Reported by Participants

MT Mettler Toledo Instruments

NZ Netzsch Instruments

TA TA Instruments

XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

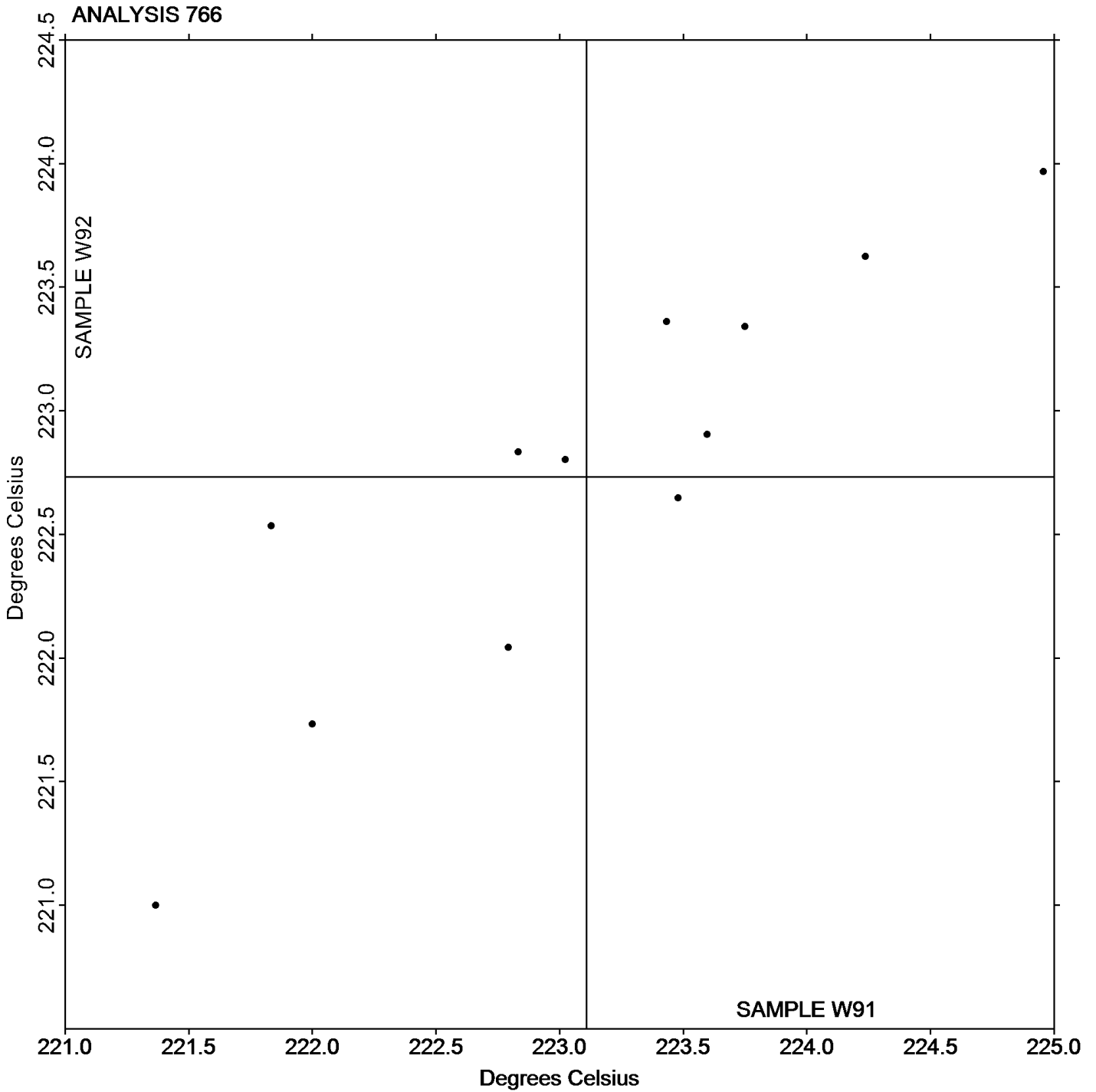
Analysis 766

Research Melting Peak Temperature

Report #126

2nd Qtr 2023

Grand Mean Sample W91: 223.11 Degrees Celsius Grand Mean Sample W92: 222.73 Degrees Celsius



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 767

2nd Qtr 2023

Research Heat of Crystallization

WebCode	Data Flag	Sample W91			Sample W92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6AXQYU		49.12	2.77	0.53	49.53	2.91	0.55	TA
7HLF3V		53.39	7.05	1.34	53.94	7.32	1.37	XX
CMCXNV		45.77	-0.58	-0.11	45.29	-1.33	-0.25	NZ
JVM22T		50.69	4.34	0.82	50.46	3.84	0.72	TA
MZBP9A		49.13	2.79	0.53	49.34	2.72	0.51	XX
NZN7UA		34.49	-11.86	-2.25	34.16	-12.46	-2.34	MT
QJTQXT		44.93	-1.41	-0.27	44.93	-1.69	-0.32	TA
TB9GFA		43.07	-3.28	-0.62	41.55	-5.07	-0.95	TA
U8HKKA		50.63	4.29	0.81	50.37	3.75	0.70	NZ
UJFNHV		41.78	-4.56	-0.87	46.29	-0.33	-0.06	TA
VYMNR7		46.79	0.45	0.08	46.94	0.32	0.06	TA

Summary Statistics

	Sample W91	Sample W92
Grand Means	46.344 Joules Per Gram	46.619 Joules Per Gram
Std Dev Btwn Labs	5.264 Joules Per Gram	5.329 Joules Per Gram

Statistics based on 11 of 11 reporting participants

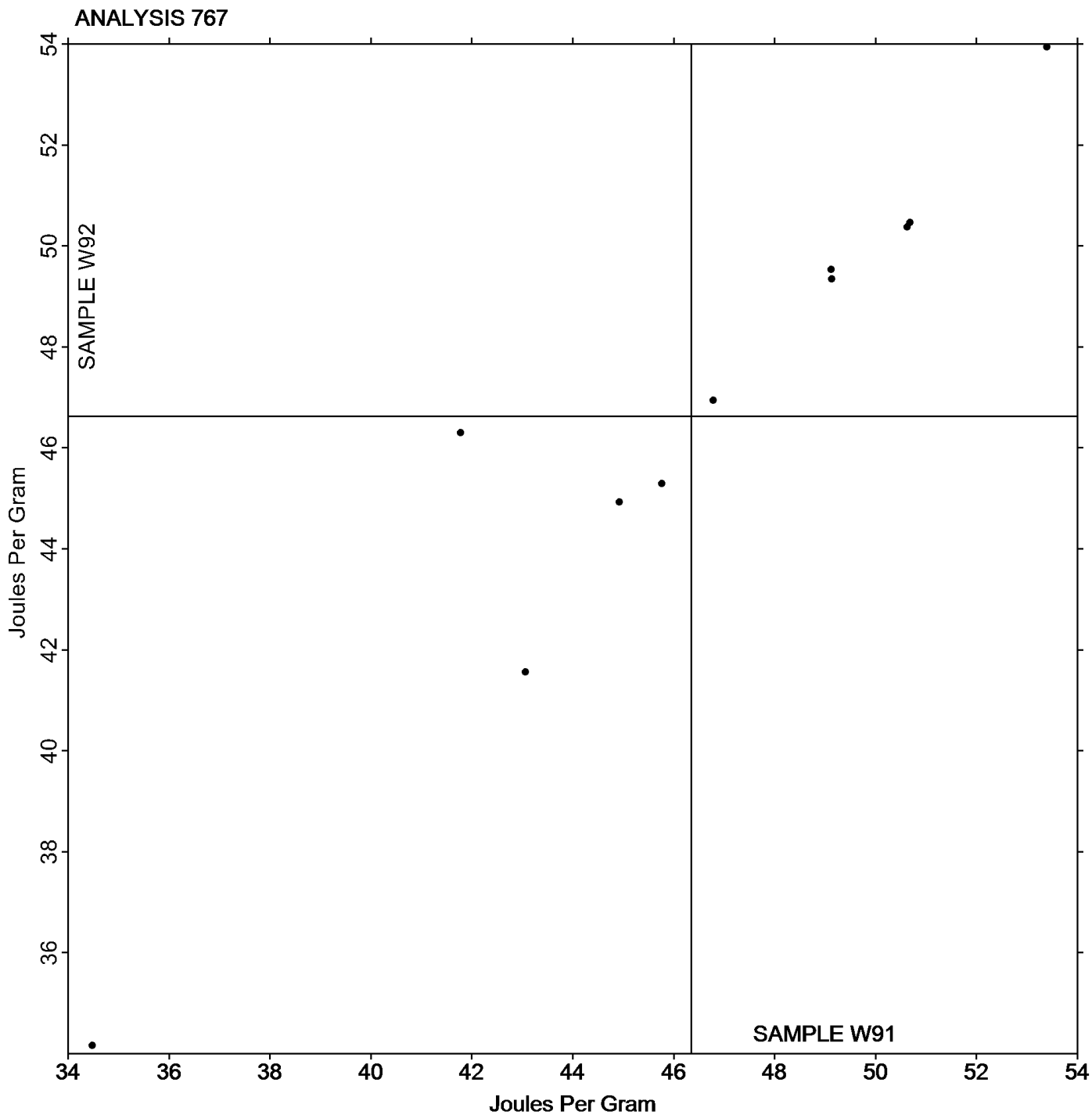
Sample W91: PBT & Sample W92: PBT

Key to Instrument Codes Reported by Participants

MT	Mettler Toledo Instruments	NZ	Netzsch Instruments
TA	TA Instruments	XX	Instrument manufacturer not specified by lab



Grand Mean Sample W91: 46.344 Joules Per Gram Grand Mean Sample W92: 46.619 Joules Per Gram



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 768

2nd Qtr 2023

Research Heat of Fusion

WebCode	Data Flag	Sample W91			Sample W92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6AXQYU		46.63	3.58	0.53	47.59	3.75	0.63	TA
7HLF3V		54.89	11.83	1.75	54.68	10.85	1.82	XX
CMCXNV		39.00	-4.05	-0.60	40.45	-3.39	-0.57	NZ
JVM22T		43.91	0.86	0.13	43.05	-0.79	-0.13	TA
MZBP9A		48.51	5.46	0.81	48.81	4.97	0.83	XX
NZN7UA		33.33	-9.72	-1.43	34.89	-8.95	-1.50	MT
QJTQXT		40.53	-2.52	-0.37	39.74	-4.09	-0.69	TA
TB9GFA		46.31	3.26	0.48	45.01	1.18	0.20	TA
U8HKKA		49.16	6.10	0.90	49.86	6.02	1.01	NZ
UJFNHV		36.47	-6.59	-0.97	40.93	-2.91	-0.49	XX
VYMNR7		34.85	-8.21	-1.21	37.20	-6.64	-1.11	TA

Summary Statistics

	Sample W91	Sample W92
Grand Means	43.054 Joules Per Gram	43.837 Joules Per Gram
Std Dev Btwn Labs	6.777 Joules Per Gram	5.963 Joules Per Gram

Statistics based on 11 of 11 reporting participants

Sample W91: PBT & Sample W92: PBT

Key to Instrument Codes Reported by Participants

MT	Mettler Toledo Instruments	NZ	Netzsch Instruments
TA	TA Instruments	XX	Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

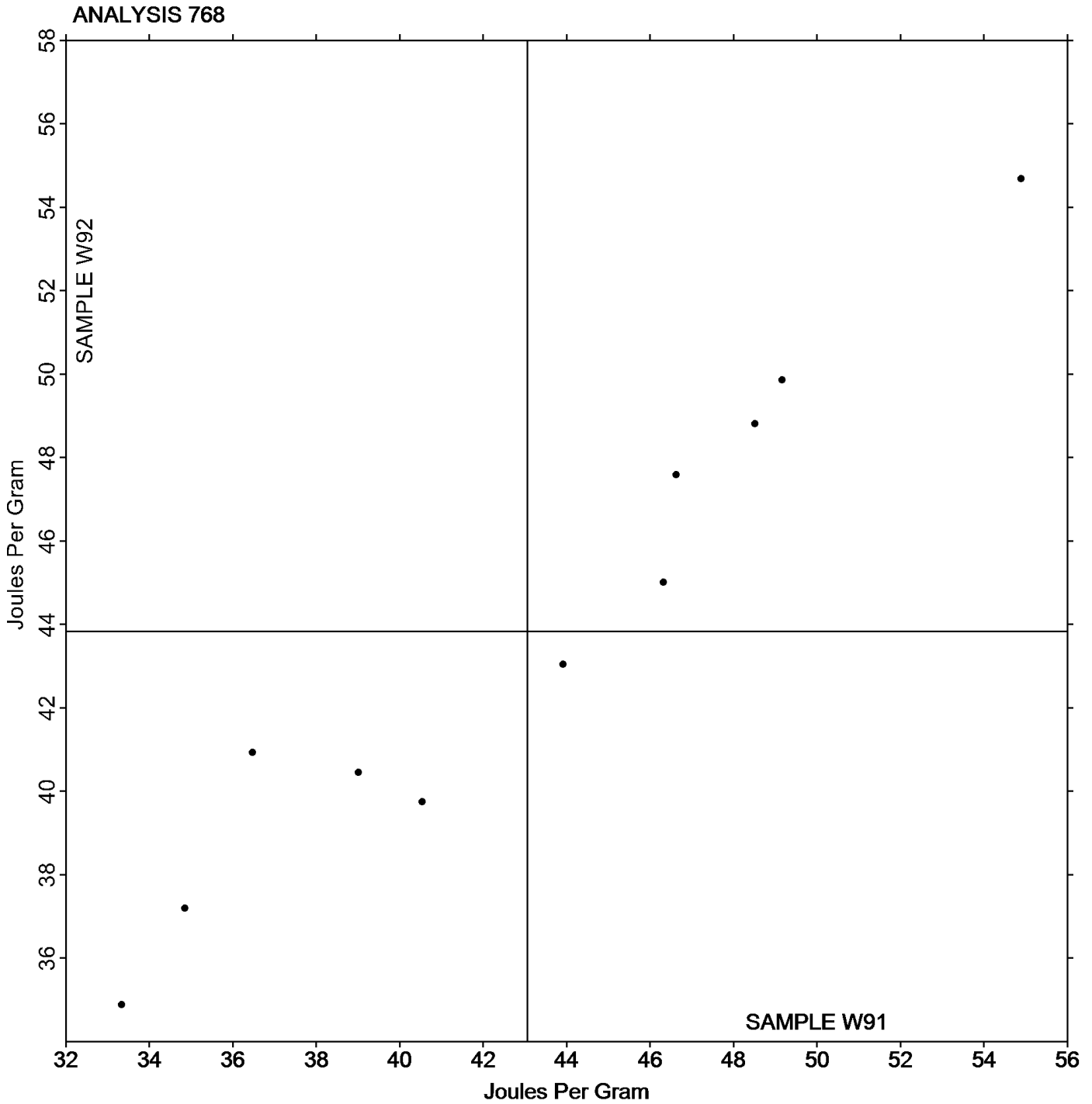
Analysis 768

Research Heat of Fusion

Report #126

2nd Qtr 2023

Grand Mean Sample W91: 43.054 Joules Per Gram Grand Mean Sample W92: 43.837 Joules Per Gram



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 769

2nd Qtr 2023

Research Glass Transition Temperature

WebCode	Data Flag	Sample V91			Sample V92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6AXQYU		82.33	2.45	0.56	82.47	2.27	0.53	TA
7HLF3V		72.25	-7.62	-1.74	75.66	-4.54	-1.06	XX
CMCXNV		82.67	2.79	0.64	82.70	2.50	0.58	NZ
JVM22T		81.47	1.59	0.36	81.73	1.53	0.36	TA
MZBP9A		80.50	0.62	0.14	80.45	0.25	0.06	XX
NZN7UA		84.84	4.97	1.13	84.98	4.78	1.12	MT
QJTQXT		81.03	1.16	0.26	82.20	2.00	0.47	TA
TB9GFA		70.54	-9.34	-2.13	69.22	-10.99	-2.56	TA
U8HKKA		81.20	1.32	0.30	81.20	1.00	0.23	NZ
UJFNHV		80.99	1.11	0.25	81.01	0.81	0.19	XX
VYMNR7		80.81	0.94	0.21	80.59	0.39	0.09	TA

Summary Statistics		
	Sample V91	Sample V92
Grand Means	79.876 Degrees Celsius	80.203 Degrees Celsius
Std Dev Btwn Labs	4.381 Degrees Celsius	4.287 Degrees Celsius
Statistics based on 11 of 11 reporting participants		

Sample V91: PET & Sample V92: PET

Key to Instrument Codes Reported by Participants

- MT Mettler Toledo Instruments
- NZ Netzsch Instruments
- TA TA Instruments
- XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

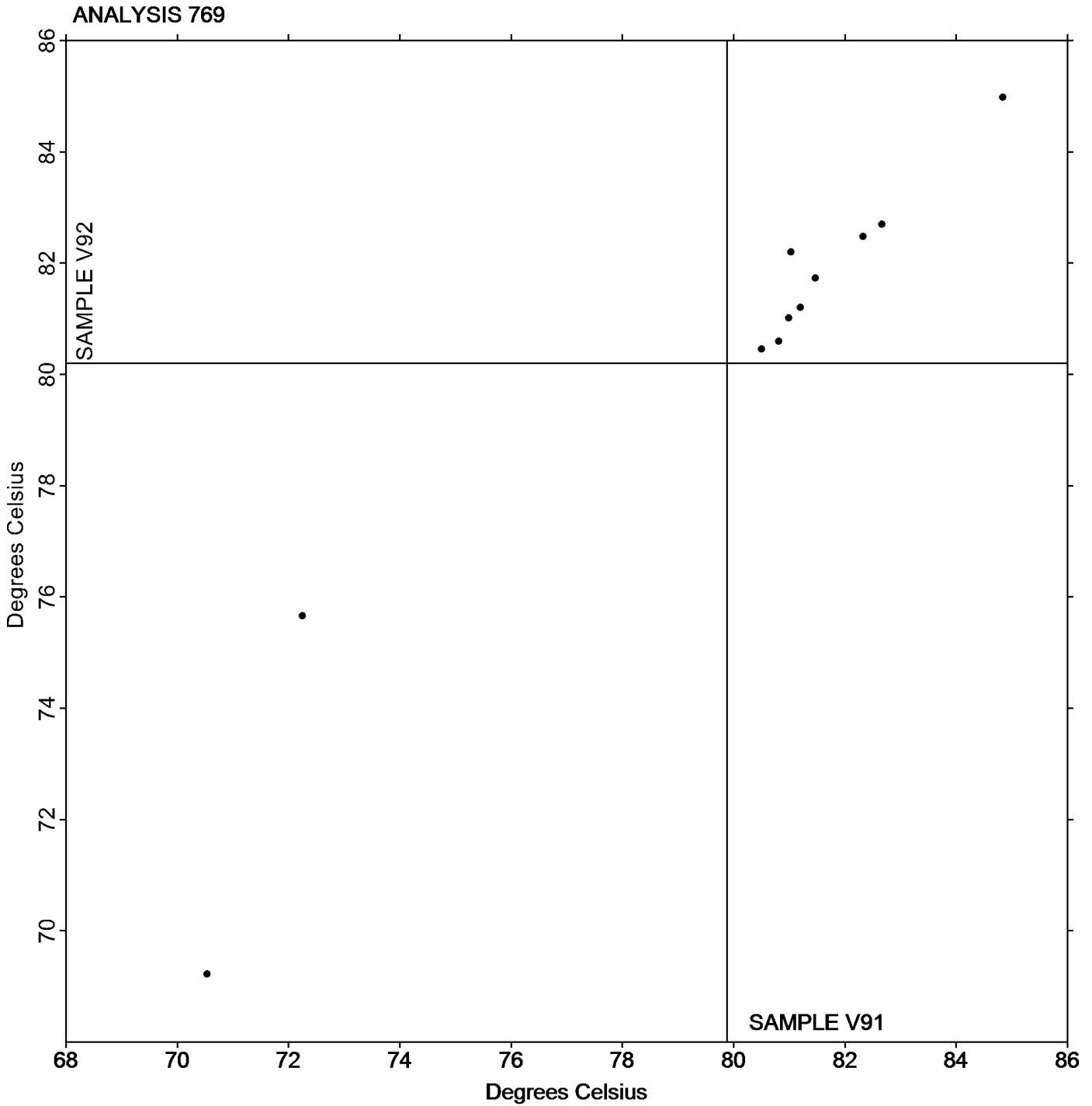
Analysis 769

Research Glass Transition Temperature

Report #126

2nd Qtr 2023

Grand Mean Sample V91: 79.876 Degrees Celsius Grand Mean Sample V92: 80.203 Degrees Celsius



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 770

2nd Qtr 2023

Tensile Stress at Yield, Film Samples - psi

WebCode	Data Flag	Sample B91			Sample B92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2Z2WL2		1,584	-179	-1.14	1,486	-258	-1.40	TO
3K363P		1,689	-74	-0.47	1,783	39	0.21	IN
4TV2HK	X	2,993	1,230	7.83	2,759	1,015	5.50	IN
7NKY88		1,791	27	0.17	1,650	-95	-0.51	IN
7XHY9Z		1,867	103	0.66	1,805	61	0.33	MT
AFY8A6		1,604	-160	-1.02	1,547	-197	-1.07	IM
CCWKTQ		1,612	-151	-0.96	1,569	-176	-0.95	IN
D6YHHL		1,761	-2	-0.02	1,824	79	0.43	OA
F6N9BB	X	3	-1,760	-11.20	3	-1,742	-9.45	XX
FC73DU		1,665	-98	-0.62	1,691	-53	-0.29	IN
GVW26Q		1,711	-53	-0.33	1,602	-143	-0.77	IN
J6DHU3		2,078	314	2.00	1,901	157	0.85	LI
NHQ9MT		2,049	286	1.82	2,178	434	2.36	WZ
PCGDFX		1,703	-60	-0.38	1,778	34	0.18	IN
QJTQXT		1,810	47	0.30	1,861	117	0.63	IN

Summary Statistics

	Sample B91	Sample B92
Grand Means	1,763.4 psi	1,744.2 psi
Stnd Dev Btwn Labs	157.2 psi	184.4 psi

Statistics based on 13 of 15 reporting participants

Sample B91: LDPE & Sample B92: LDPE

Comments on Assigned Data Flags for Test #770

F6N9BB (X) - Extreme data.

4TV2HK (X) - Data for both samples are high. Inconsistent in testing within both samples.

Key to Instrument Codes Reported by Participants

IM	Instru-Met Instruments	IN	Instron
LI	Lloyd Instruments	MT	MTS/Sintech
OA	Oakland Testing	TO	Tinius Olsen
WZ	Zwick	XX	Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

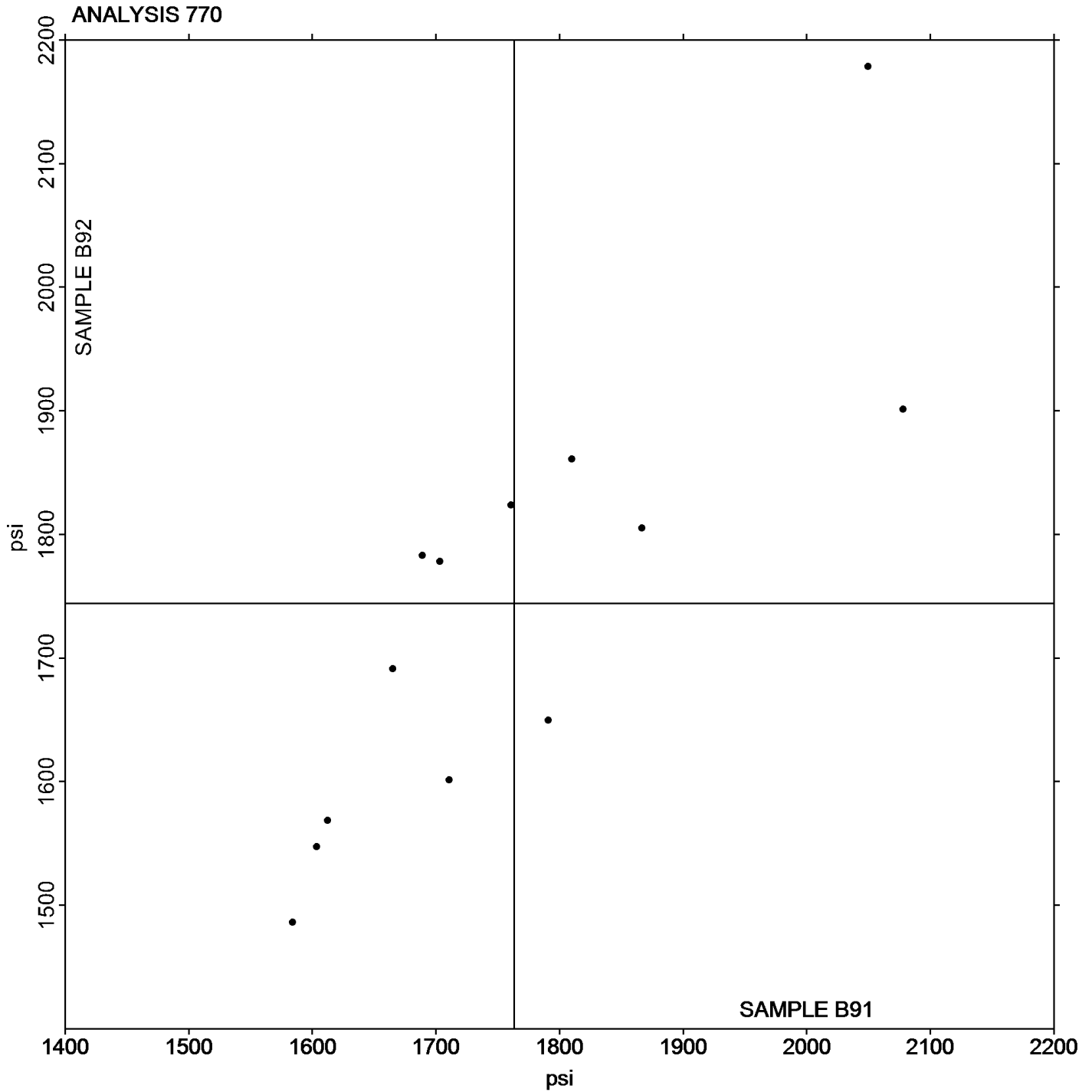
Report #126

Analysis 770

2nd Qtr 2023

Tensile Stress at Yield, Film Samples - psi

Grand Mean Sample B91: 1,763.37 psi Grand Mean Sample B92: 1,744.25 psi



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 771

2nd Qtr 2023

Tensile Stress at Break, Film Samples - psi

WebCode	Data Flag	Sample B91			Sample B92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2Z2WL2		3,073	-618	-1.19	2,780	-579	-1.20	TO
3K363P		3,593	-98	-0.19	3,357	-2	0.00	IN
4TV2HK	X	1,221	-2,470	-4.77	1,142	-2,217	-4.61	IN
7NKY88		4,115	424	0.82	3,339	-21	-0.04	IN
7XHY9Z		4,026	335	0.65	3,589	230	0.48	MT
AFY8A6		3,735	44	0.08	3,278	-81	-0.17	IM
CCWKTQ		3,810	118	0.23	3,579	220	0.46	IN
D6YHHL		3,650	-41	-0.08	3,679	320	0.67	OA
F2349Z		4,053	361	0.70	3,608	249	0.52	IN
FC73DU		3,236	-455	-0.88	2,953	-406	-0.84	IN
GVW26Q		4,033	342	0.66	3,323	-36	-0.08	IN
J6DHU3		2,975	-716	-1.38	2,811	-548	-1.14	LI
JVM22T		2,752	-939	-1.81	2,577	-782	-1.62	UC
NHQ9MT		4,783	1,092	2.11	4,559	1,200	2.49	WZ
PCGDFX		3,732	41	0.08	3,685	326	0.68	IN
QJTQXT		3,803	112	0.22	3,268	-91	-0.19	IN

Summary Statistics		
	Sample B91	Sample B92
Grand Means	3,691.3 psi	3,359.0 psi
Stnd Dev Btwn Labs	518.1 psi	481.0 psi
Statistics based on 15 of 16 reporting participants		

Sample B91: LDPE & Sample B92: LDPE

Comments on Assigned Data Flags for Test #771

4TV2HK (X) - Data for both samples are low.

Key to Instrument Codes Reported by Participants

IM Instru-Met Instruments	IN Instron
LI Lloyd Instruments	MT MTS/Sintech
OA Oakland Testing	TO Tinius Olsen
UC United	WZ Zwick



Plastics Interlaboratory Testing Program

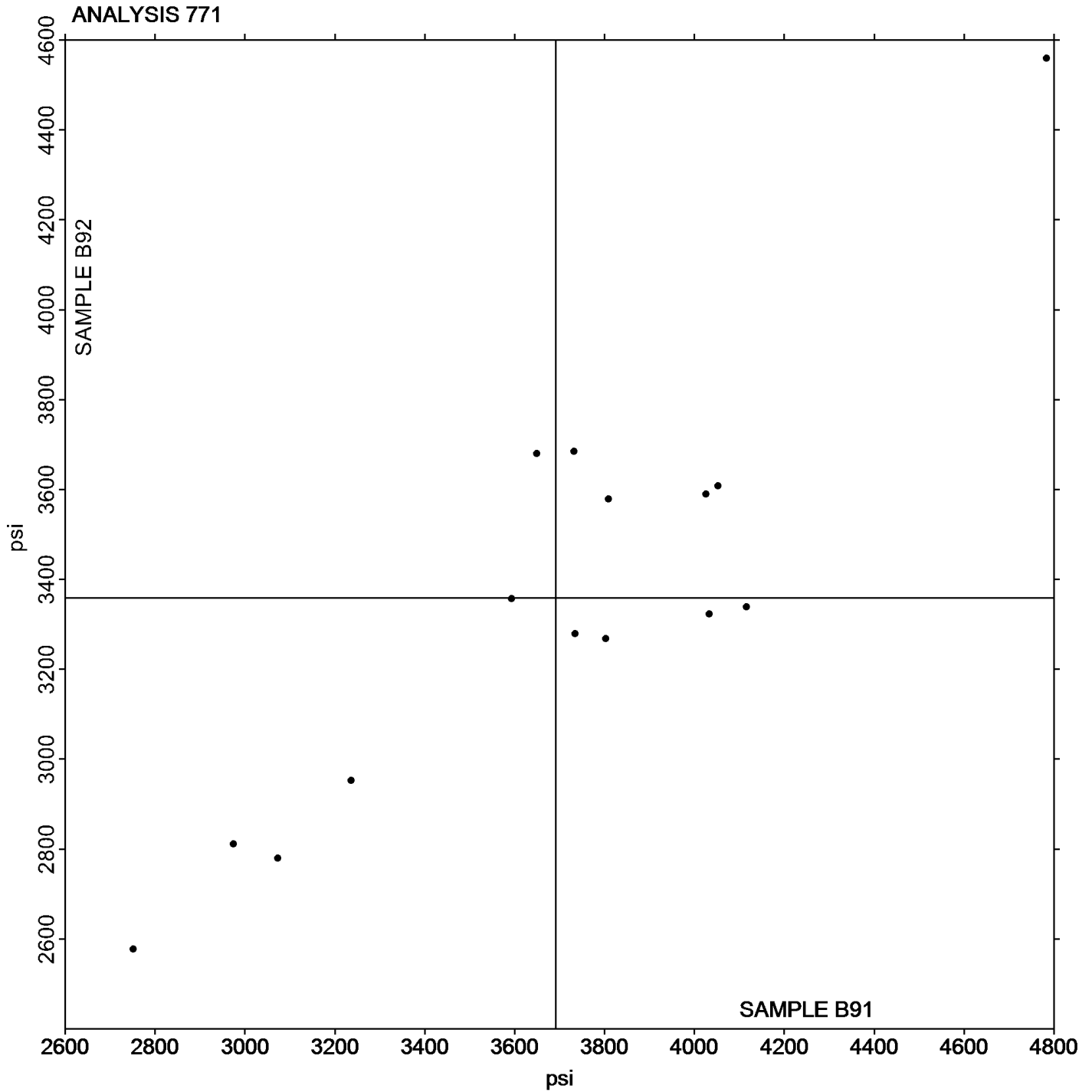
Analysis 771

Tensile Stress at Break, Film Samples - psi

Report #126

2nd Qtr 2023

Grand Mean Sample B91: 3,691.32 psi Grand Mean Sample B92: 3,359.00 psi



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 772

2nd Qtr 2023

Percent Elongation at Yield, Films

WebCode	Data Flag	Sample B91			Sample B92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2Z2WL2		27.90	-8.99	-0.53	21.90	-35.67	-1.31	TO
3K363P		56.90	20.01	1.18	80.95	23.38	0.86	IN
4TV2HK	X	1,317.87	1,280.98	75.59	1,310.89	1,253.32	45.90	IN
7NKY88		47.66	10.77	0.64	79.50	21.93	0.80	IN
7XHY9Z		44.52	7.63	0.45	67.87	10.30	0.38	MT
AFY8A6		30.66	-6.23	-0.37	41.27	-16.30	-0.60	IM
CCWKTQ		8.06	-28.83	-1.70	8.13	-49.44	-1.81	IN
F2349Z		47.41	10.52	0.62	73.80	16.23	0.59	IN
FC73DU		65.91	29.02	1.71	73.72	16.15	0.59	IN
GVW26Q		17.36	-19.52	-1.15	17.32	-40.25	-1.47	IN
J6DHU3	*	14.13	-22.76	-1.34	95.33	37.76	1.38	LI
NHQ9MT		38.00	1.11	0.07	58.60	1.03	0.04	WZ
PCGDFX		45.04	8.15	0.48	73.63	16.06	0.59	IN
QJTQXT		35.97	-0.92	-0.05	56.39	-1.18	-0.04	IN

Summary Statistics		
	Sample B91	Sample B92
Grand Means	36.886 Percent	57.570 Percent
Stnd Dev Btwn Labs	16.947 Percent	27.304 Percent

Statistics based on 13 of 14 reporting participants

Sample B91: LDPE & Sample B92: LDPE

Comments on Assigned Data Flags for Test #772

4TV2HK (X) - Extreme data.

Key to Instrument Codes Reported by Participants

- | | |
|---------------------------|----------------|
| IM Instru-Met Instruments | IN Instron |
| LI Lloyd Instruments | MT MTS/Sintech |
| TO Tinius Olsen | WZ Zwick |



Plastics Interlaboratory Testing Program

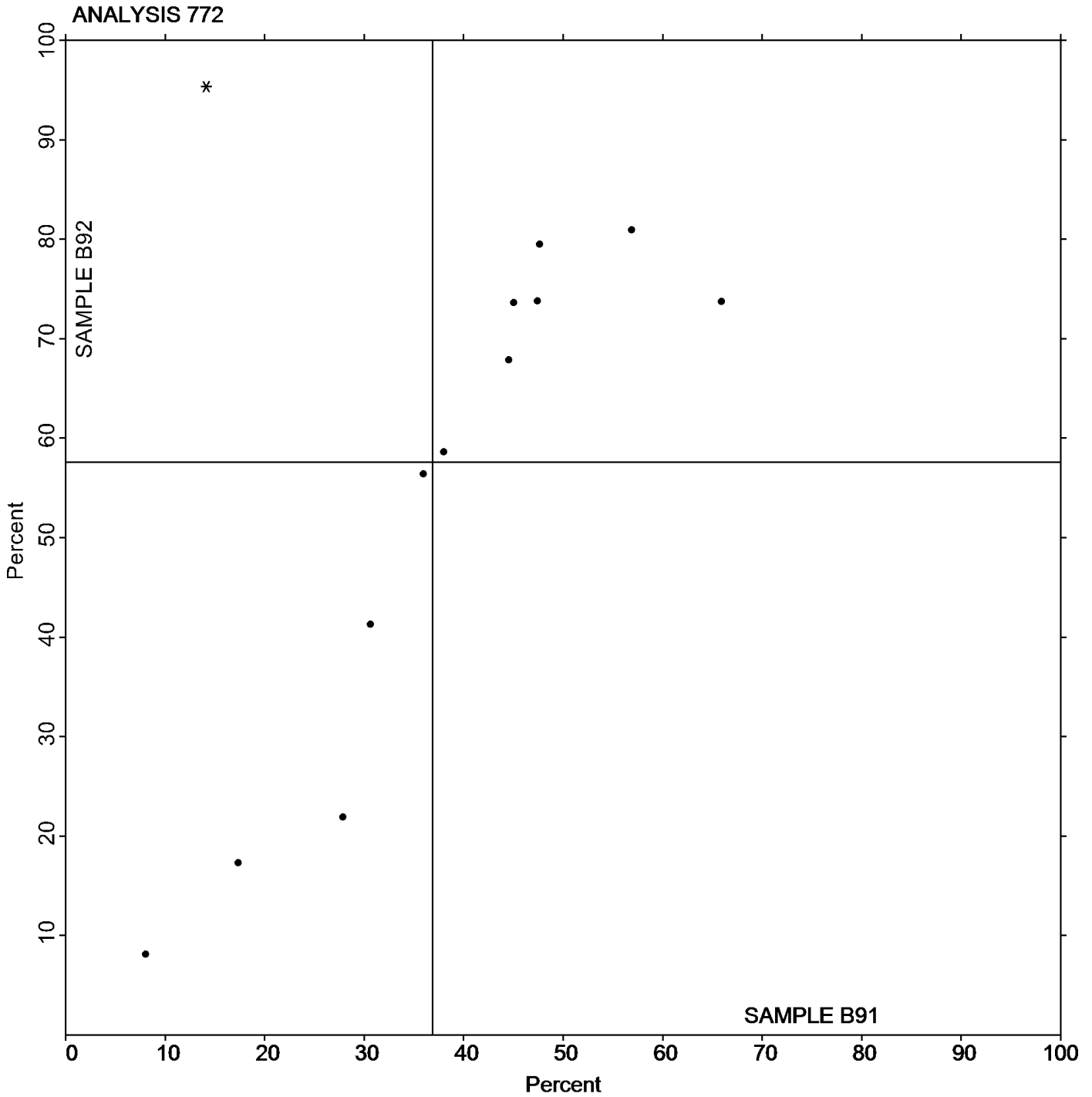
Analysis 772

Percent Elongation at Yield, Films

Report #126

2nd Qtr 2023

Grand Mean Sample B91: 36.886 Percent Grand Mean Sample B92: 57.570 Percent



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 773

2nd Qtr 2023

Percent Elongation at Break, Film Samples

WebCode	Data Flag	Sample B91			Sample B92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2Z2WL2		991.4	148.7	1.29	767.8	51.4	0.57	TO
3K363P		968.0	125.3	1.09	746.0	29.6	0.33	IN
4TV2HK	X	53.5	-789.2	-6.87	97.1	-619.3	-6.80	IN
7NKY88		1,044.1	201.4	1.75	886.3	169.9	1.87	IN
7XHY9Z		824.1	-18.6	-0.16	780.7	64.3	0.71	MT
AFY8A6		821.1	-21.6	-0.19	755.4	39.0	0.43	IM
CCWKTQ		698.4	-144.3	-1.26	602.2	-114.1	-1.25	IN
D6YHHL		887.1	44.4	0.39	709.0	-7.4	-0.08	OA
F2349Z		829.5	-13.2	-0.11	714.1	-2.3	-0.02	IN
FC73DU		901.4	58.7	0.51	749.9	33.5	0.37	IN
GVW26Q		707.5	-135.1	-1.18	607.3	-109.1	-1.20	IN
J6DHU3		761.5	-81.2	-0.71	682.3	-34.1	-0.37	LI
NHQ9MT		737.0	-105.7	-0.92	634.0	-82.4	-0.90	WZ
PCGDFX		932.0	89.3	0.78	829.0	112.6	1.24	IN
QJTQXT		694.5	-148.2	-1.29	565.0	-151.4	-1.66	IN

Summary Statistics		
	Sample B91	Sample B92
Grand Means	842.68 Percent	716.35 Percent
Stnd Dev Btw Labs	114.89 Percent	91.02 Percent
Statistics based on 14 of 15 reporting participants		

Sample B91: LDPE & Sample B92: LDPE

Comments on Assigned Data Flags for Test #773

4TV2HK (X) - Extreme data.

Key to Instrument Codes Reported by Participants

- | | |
|---------------------------|-----------------|
| IM Instru-Met Instruments | IN Instron |
| LI Lloyd Instruments | MT MTS/Sintech |
| OA Oakland Testing | TO Tinius Olsen |
| WZ Zwick | |



Plastics Interlaboratory Testing Program

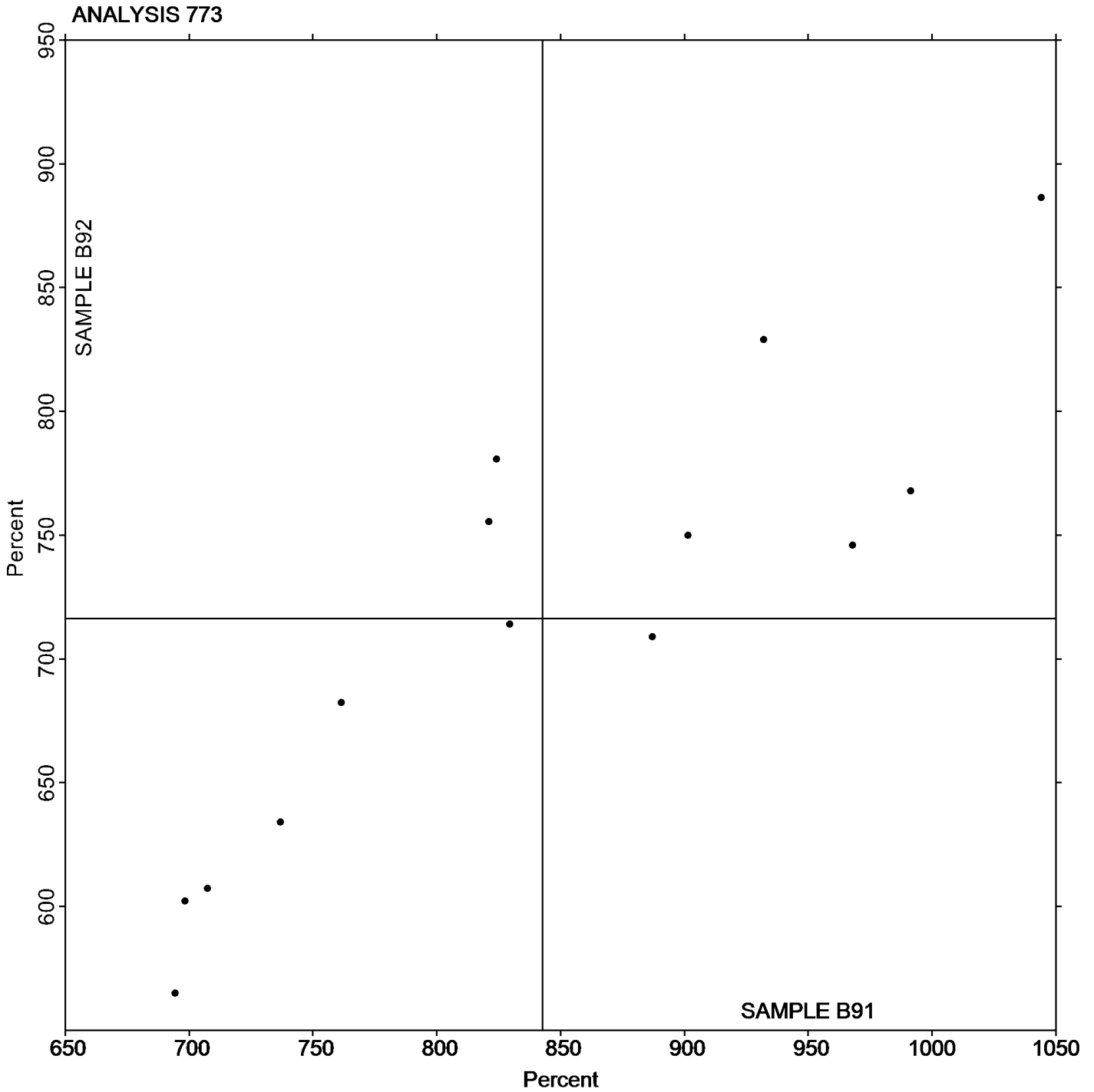
Analysis 773

Percent Elongation at Break, Film Samples

Report #126

2nd Qtr 2023

Grand Mean Sample B91: 842.68 Percent Grand Mean Sample B92: 716.35 Percent



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 774

2nd Qtr 2023

Thickness of Film Tensile Samples - mils

WebCode	Data Flag	<u>Sample B91</u>			<u>Sample B92</u>		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2Z2WL2		3.0670	0.2221	0.96	2.9489	0.1585	0.48
3K363P		3.0520	0.2071	0.89	2.4890	-0.3014	-0.91
4TV2HK		2.8400	-0.0049	-0.02	2.8600	0.0696	0.21
7NKY88		2.9200	0.0751	0.32	3.2100	0.4196	1.27
7XHY9Z		3.0000	0.1551	0.67	3.2500	0.4596	1.39
AFY8A6		2.7010	-0.1439	-0.62	3.4660	0.6756	2.04
CCWKTQ		3.1180	0.2731	1.18	2.6990	-0.0914	-0.28
D6YHHL		3.0940	0.2491	1.08	2.4330	-0.3574	-1.08
F2349Z		2.4400	-0.4049	-1.75	2.3100	-0.4804	-1.45
FC73DU		2.8640	0.0191	0.08	2.9570	0.1666	0.50
GVW26Q		3.0197	0.1749	0.76	2.8859	0.0955	0.29
J6DHU3		2.4308	-0.4141	-1.79	2.5839	-0.2065	-0.62
JVM22T		2.9800	0.1351	0.58	2.5400	-0.2504	-0.76
NHQ9MT		2.4921	-0.3527	-1.52	2.2756	-0.5148	-1.56
PCGDFX		2.9700	0.1251	0.54	2.8800	0.0896	0.27
QJTQXT		2.7330	-0.1119	-0.48	2.7820	-0.0084	-0.03
VNA68V		2.6410	-0.2039	-0.88	2.8660	0.0756	0.23

Summary Statistics		
	<u>Sample B91</u>	<u>Sample B92</u>
Grand Means	2.84486 mils	2.79037 mils
Std Dev Btwn Labs	0.23159 mils	0.33095 mils
Statistics based on 17 of 17 reporting participants		

Sample B91: LDPE & Sample B92: LDPE



Plastics Interlaboratory Testing Program

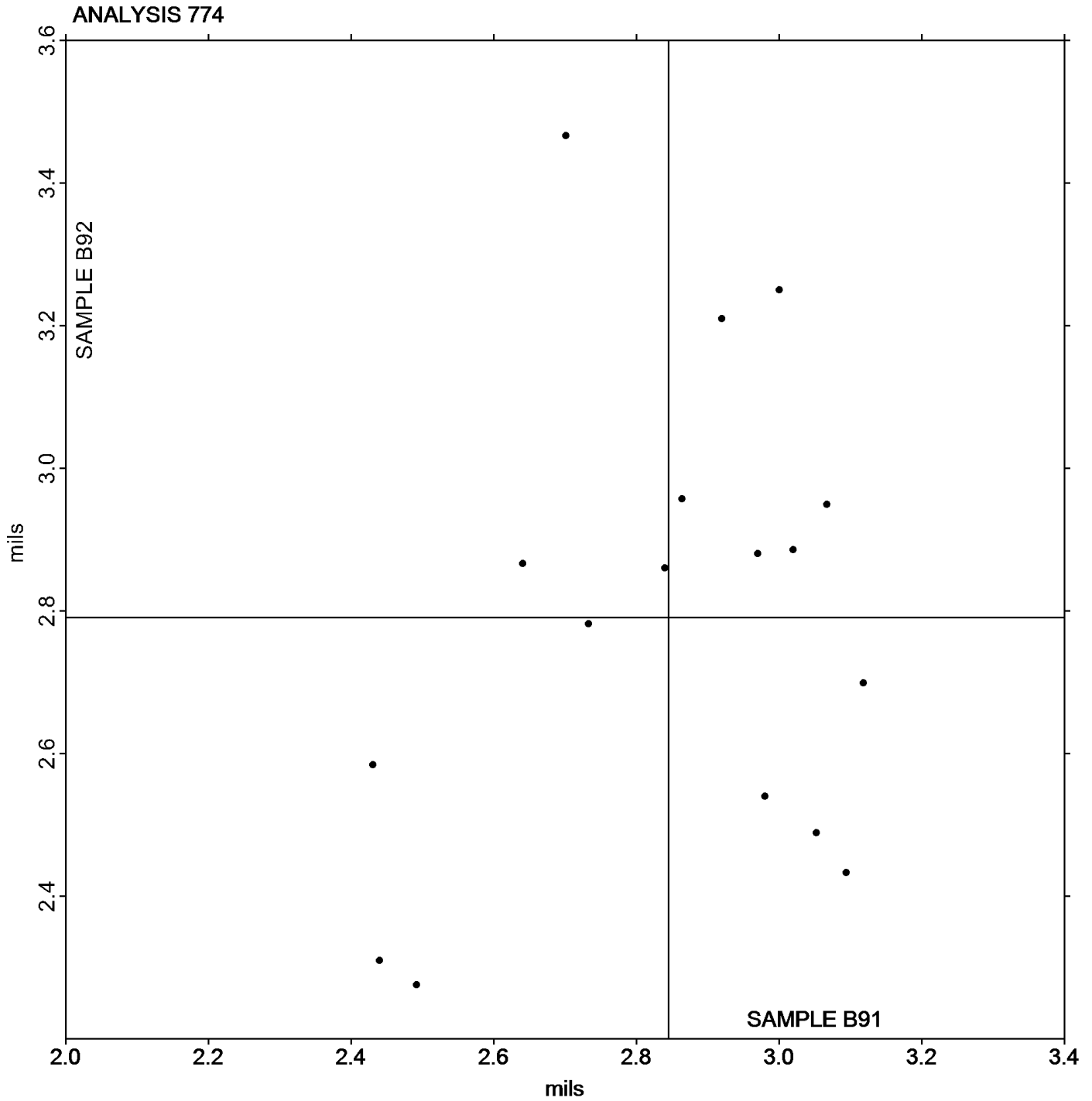
Analysis 774

Thickness of Film Tensile Samples - mils

Report #126

2nd Qtr 2023

Grand Mean Sample B91: 2.8449 mils Grand Mean Sample B92: 2.7904 mils





Plastics Interlaboratory Testing Program

Report #126

Analysis 775

2nd Qtr 2023

Secant Modulus at 1% Strain - psi

WebCode	Data Flag	Sample B91			Sample B92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2Z2WL2		29,680	-2,461	-0.88	25,240	-4,192	-1.38	TO
7NKY88		27,035	-5,106	-1.82	25,407	-4,025	-1.32	IN
AFY8A6		31,395	-746	-0.27	28,820	-612	-0.20	IM
CCWKTQ		29,750	-2,391	-0.85	27,585	-1,847	-0.61	IN
D6YHHL		35,056	2,915	1.04	32,823	3,391	1.12	OA
FC73DU		34,140	2,000	0.71	31,819	2,387	0.78	IN
J6DHU3		33,396	1,255	0.45	28,573	-859	-0.28	LI
NHQ9MT	X	59,031	26,890	9.59	44,759	15,327	5.04	WZ
PCGDFX		34,125	1,984	0.71	33,284	3,852	1.27	IN
QJTQXT		34,690	2,549	0.91	31,340	1,908	0.63	IN

Summary Statistics		
	Sample B91	Sample B92
Grand Means	32,140.7 psi	29,432.3 psi
Std Dev Btwn Labs	2,804.1 psi	3,040.8 psi
Statistics based on 9 of 10 reporting participants		

Sample B91: LDPE & Sample B92: LDPE

Comments on Assigned Data Flags for Test #775

NHQ9MT (X) - Data for both samples are high. Inconsistent in testing within both samples.

Key to Instrument Codes Reported by Participants

- | | | | |
|----|------------------------|----|-----------------|
| IM | Instru-Met Instruments | IN | Instron |
| LI | Lloyd Instruments | OA | Oakland Testing |
| TO | Tinius Olsen | WZ | Zwick |



Plastics Interlaboratory Testing Program

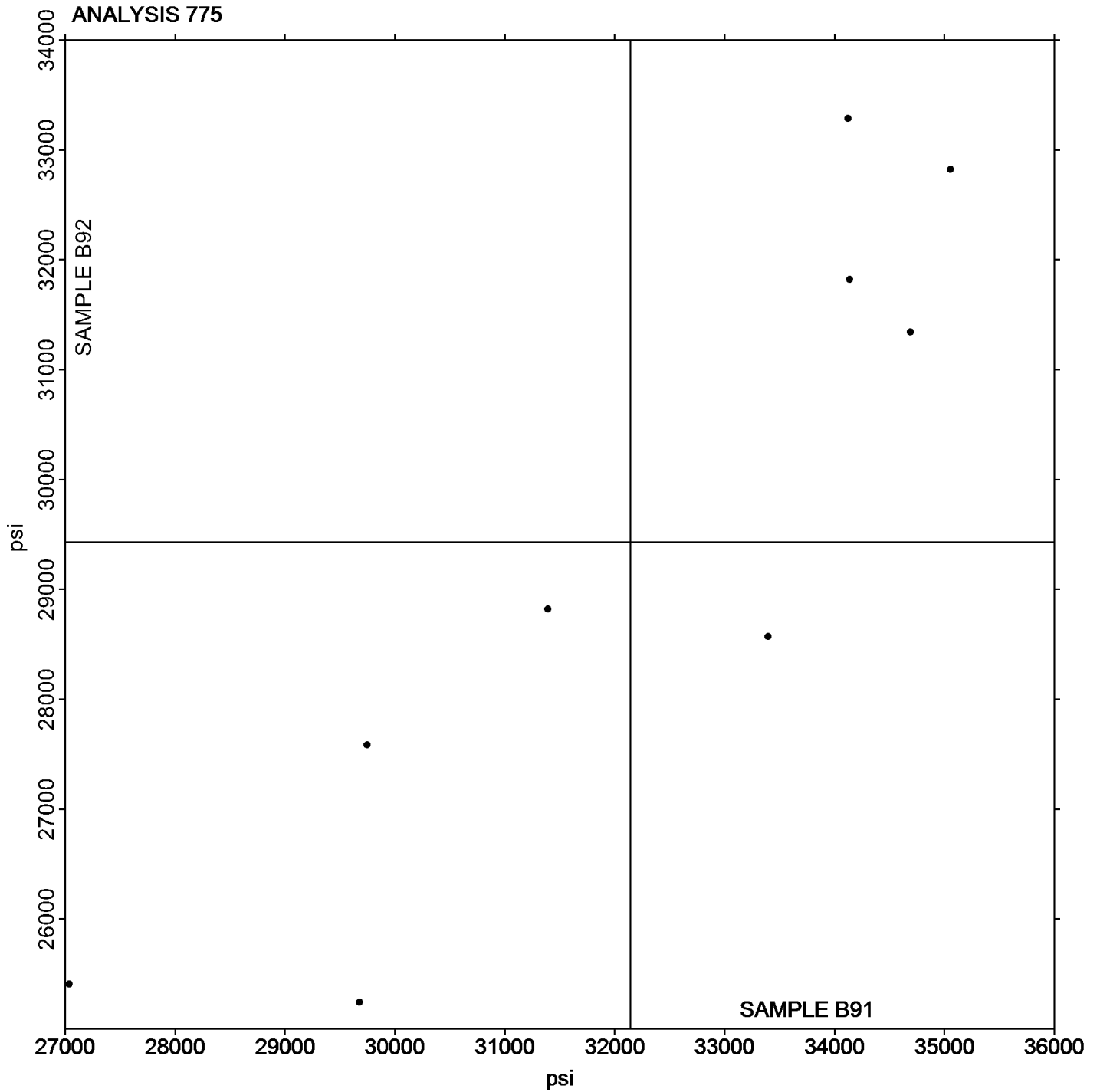
Report #126

Analysis 775

2nd Qtr 2023

Secant Modulus at 1% Strain - psi

Grand Mean Sample B91: 32,140.70 psi Grand Mean Sample B92: 29,432.32 psi



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 776

2nd Qtr 2023

Secant Modulus at 2% Strain - psi

WebCode	Data Flag	Sample B91			Sample B92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2Z2WL2		29,880	2,252	0.85	25,440	186	0.08	TO
7NKY88		21,963	-5,665	-2.15	20,923	-4,330	-1.93	IN
AFY8A6		26,350	-1,278	-0.48	24,618	-635	-0.28	IM
CCWKTQ		26,720	-908	-0.34	24,992	-262	-0.12	MT
FC73DU		28,702	1,074	0.41	26,942	1,688	0.75	IN
J6DHU3		28,653	1,025	0.39	23,879	-1,374	-0.61	LI
NHQ9MT	X	51,126	23,498	8.91	42,163	16,909	7.53	WZ
PCGDFX		28,777	1,148	0.44	27,375	2,121	0.94	IN
QJTQXT		29,980	2,352	0.89	27,860	2,606	1.16	IN

Summary Statistics		Sample B91	Sample B92
Grand Means		27,628.0 psi	25,253.6 psi
Stnd Dev Btwn Labs		2,637.1 psi	2,245.3 psi
Statistics based on 8 of 9 reporting participants			

Sample B91: LDPE & Sample B92: LDPE

Comments on Assigned Data Flags for Test #776

NHQ9MT (X) - Data for both samples are high. Inconsistent in testing within both samples.

Key to Instrument Codes Reported by Participants

- | | | | |
|----|------------------------|----|-------------|
| IM | Instru-Met Instruments | IN | Instron |
| LI | Lloyd Instruments | MT | MTS/Sintech |
| TO | Tinius Olsen | WZ | Zwick |



Plastics Interlaboratory Testing Program

Report #126

Analysis 780

2nd Qtr 2023

Coefficient of Static Friction

WebCode	Data Flag	Sample P91			Sample P92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2Z2WL2		0.1212	-0.0460	-0.93	0.1274	-0.0369	-0.74	RD
7XHY9Z		0.1074	-0.0598	-1.21	0.1052	-0.0591	-1.18	TO
AFY8A6		0.1148	-0.0524	-1.06	0.1098	-0.0545	-1.09	TH
CCWKTQ		0.2076	0.0404	0.82	0.1718	0.0075	0.15	MI
D6YHHL		0.1488	-0.0184	-0.37	0.1670	0.0027	0.05	DY
D9DPQY		0.1856	0.0184	0.37	0.1189	-0.0454	-0.90	IG
LDJ7JL		0.1856	0.0184	0.37	0.1984	0.0341	0.68	TH
N6GAH8		0.2700	0.1028	2.09	0.2876	0.1233	2.46	XX
NHQ9MT		0.2060	0.0388	0.79	0.1680	0.0037	0.07	SA
PCGDFX		0.1386	-0.0286	-0.58	0.1602	-0.0041	-0.08	TM
QJTQXT		0.1242	-0.0430	-0.87	0.1570	-0.0073	-0.15	TH
TQGM9K		0.1966	0.0294	0.60	0.2006	0.0363	0.72	MI

Summary Statistics

	Sample P91	Sample P92
Grand Means	0.16720 COF	0.16433 COF
Stnd Dev Btwn Labs	0.04926 COF	0.05019 COF

Statistics based on 12 of 12 reporting participants

Sample P91: LDPE & Sample P92: LDPE

Key to Instrument Codes Reported by Participants

DY	Dynisco Model D1055	IG	Instron
MI	MTS Insight	RD	RDM CF
SA	Shimadzu Autograph	TH	Thwing Albert Friction/Peel Tester Model 225-1
TM	TMI Slip and Friction Tester	TO	Tinius Olsen
XX	Instrument make/model not specified by lab		



Plastics Interlaboratory Testing Program

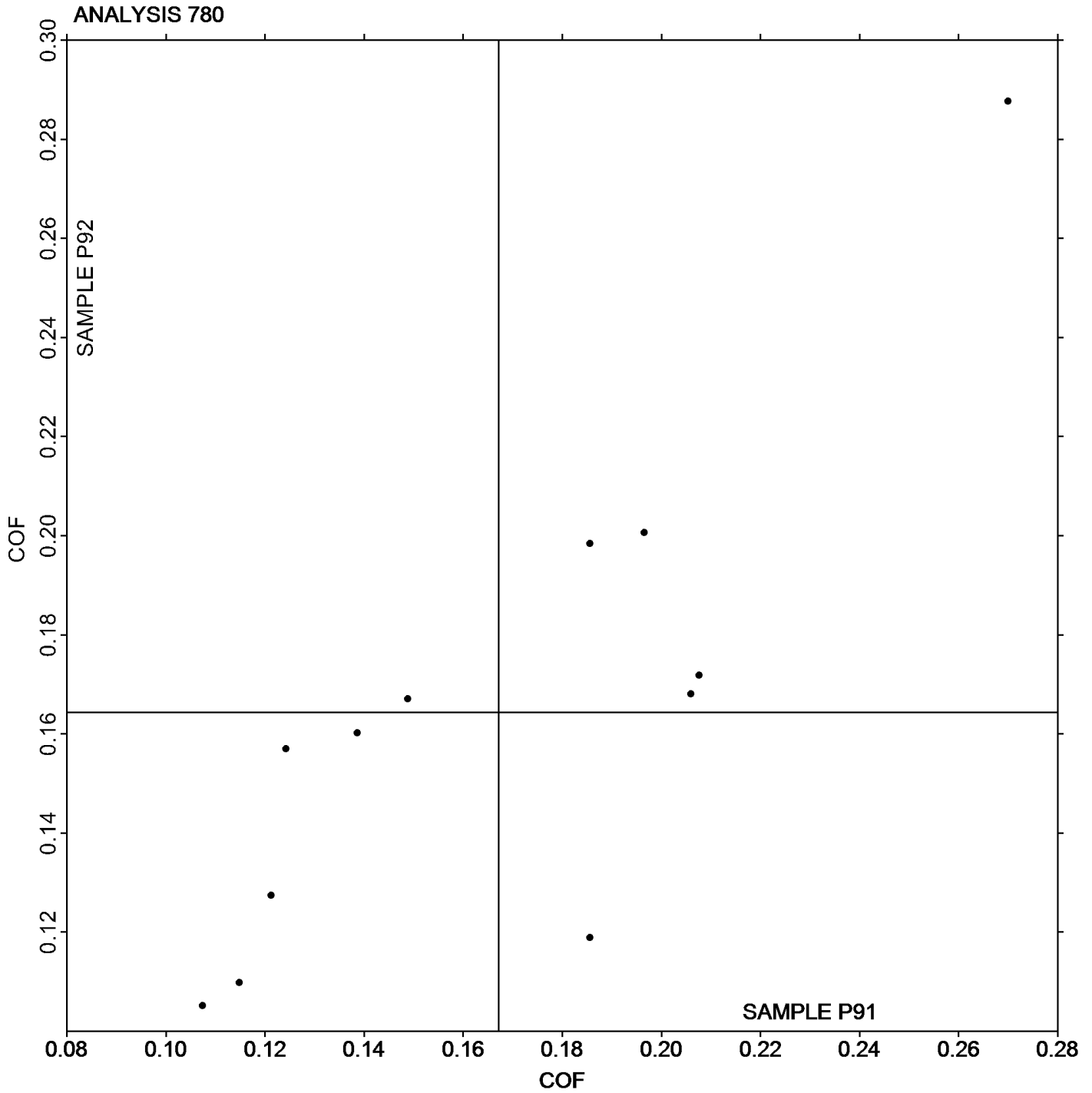
Analysis 780

Coefficient of Static Friction

Report #126

2nd Qtr 2023

Grand Mean Sample P91: 0.16720 COF Grand Mean Sample P92: 0.16433 COF



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 781

2nd Qtr 2023

Coefficient of Kinetic Friction

WebCode	Data Flag	Sample P91			Sample P92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2Z2WL2		0.1144	0.0156	0.41	0.1190	0.0125	0.31	RD
7XHY9Z		0.0644	-0.0344	-0.91	0.0732	-0.0333	-0.82	TO
AFY8A6		0.0660	-0.0328	-0.87	0.0616	-0.0449	-1.10	TH
CCWKTQ		0.0878	-0.0110	-0.29	0.0888	-0.0177	-0.43	MI
D6YHHL		0.1110	0.0122	0.32	0.1234	0.0169	0.42	DY
D9DPQY		0.0852	-0.0136	-0.36	0.0707	-0.0358	-0.88	IG
LDJ7JL		0.0808	-0.0180	-0.47	0.1018	-0.0047	-0.11	TH
N6GAH8		0.2064	0.1076	2.85	0.2116	0.1051	2.58	XX
NHQ9MT		0.1000	0.0012	0.03	0.1080	0.0015	0.04	SA
PCGDFX		0.0732	-0.0256	-0.68	0.0748	-0.0317	-0.78	TM
QJTQXT		0.1084	0.0096	0.25	0.1376	0.0311	0.77	TH
TQGM9K		0.0876	-0.0112	-0.30	0.1072	0.0007	0.02	MI

Summary Statistics		
	Sample P91	Sample P92
Grand Means	0.09876 COF	0.10648 COF
Stnd Dev Btwn Labs	0.03782 COF	0.04068 COF
Statistics based on 12 of 12 reporting participants		

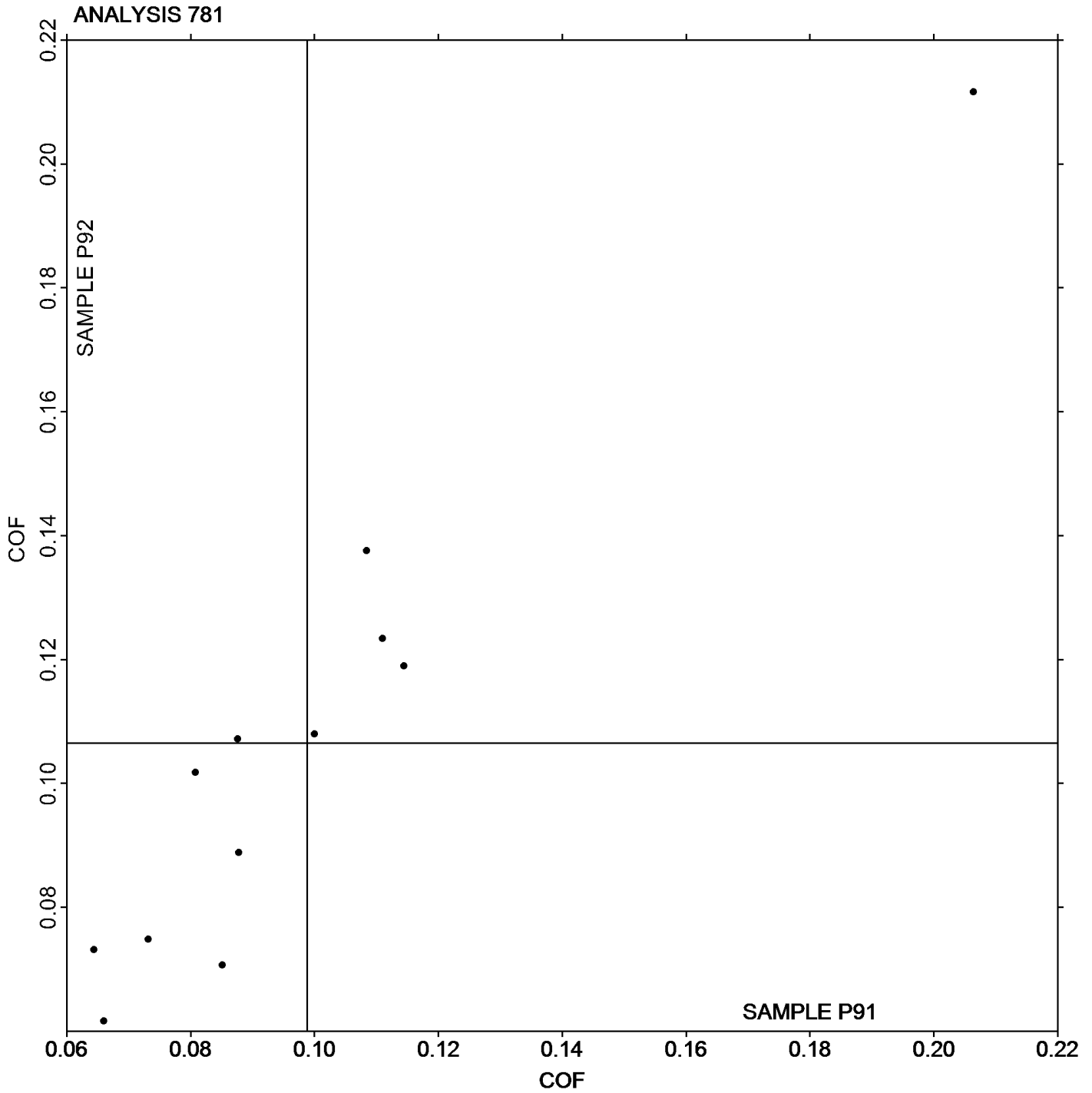
Sample P91: LDPE & Sample P92: LDPE

Key to Instrument Codes Reported by Participants

- | | | | |
|----|--|----|--|
| DY | Dynisco Model D1055 | IG | Instron |
| MI | MTS Insight | RD | RDM CF |
| SA | Shimadzu Autograph | TH | Thwing Albert Friction/Peel Tester Model 225-1 |
| TM | TMI Slip and Friction Tester | TO | Tinius Olsen |
| XX | Instrument make/model not specified by lab | | |



Grand Mean Sample P91: 0.09876 COF Grand Mean Sample P92: 0.10648 COF



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 782

2nd Qtr 2023

Tear Resistance of Films

WebCode	Data Flag	Sample Q91			Sample Q92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
AFY8A6		402.3	74.2	1.69	415.9	95.3	1.26	EM
CCWKTQ		270.8	-57.3	-1.30	250.7	-69.8	-0.92	TE
D6YHHL		355.8	27.7	0.63	324.2	3.6	0.05	TA
GVW26Q		334.6	6.5	0.15	389.5	68.9	0.91	SZ
NHQ9MT		283.9	-44.2	-1.00	275.7	-44.8	-0.59	LO
PCGDFX		322.9	-5.2	-0.12	215.7	-104.9	-1.38	TM
QJTQXT		326.1	-2.0	-0.04	372.1	51.5	0.68	TE

Summary Statistics		
	Sample Q91	Sample Q92
Grand Means	328.05 grams-force	320.55 grams-force
Std Dev Btwn Labs	43.94 grams-force	75.71 grams-force
Statistics based on 7 of 7 reporting participants		

Sample Q91: LDPE & Sample Q92: LDPE

Key to Instrument Codes Reported by Participants

- | | | | |
|----|------------------------|----|-----------------------------|
| EM | Elmendorf Tear Tester | LO | Lorentzen & Wettre Model II |
| SZ | Textest FX 3700 | TA | Thwing-Albert |
| TE | Thwing-Albert Pro Tear | TM | TMI No. 83-1100 |



Plastics Interlaboratory Testing Program

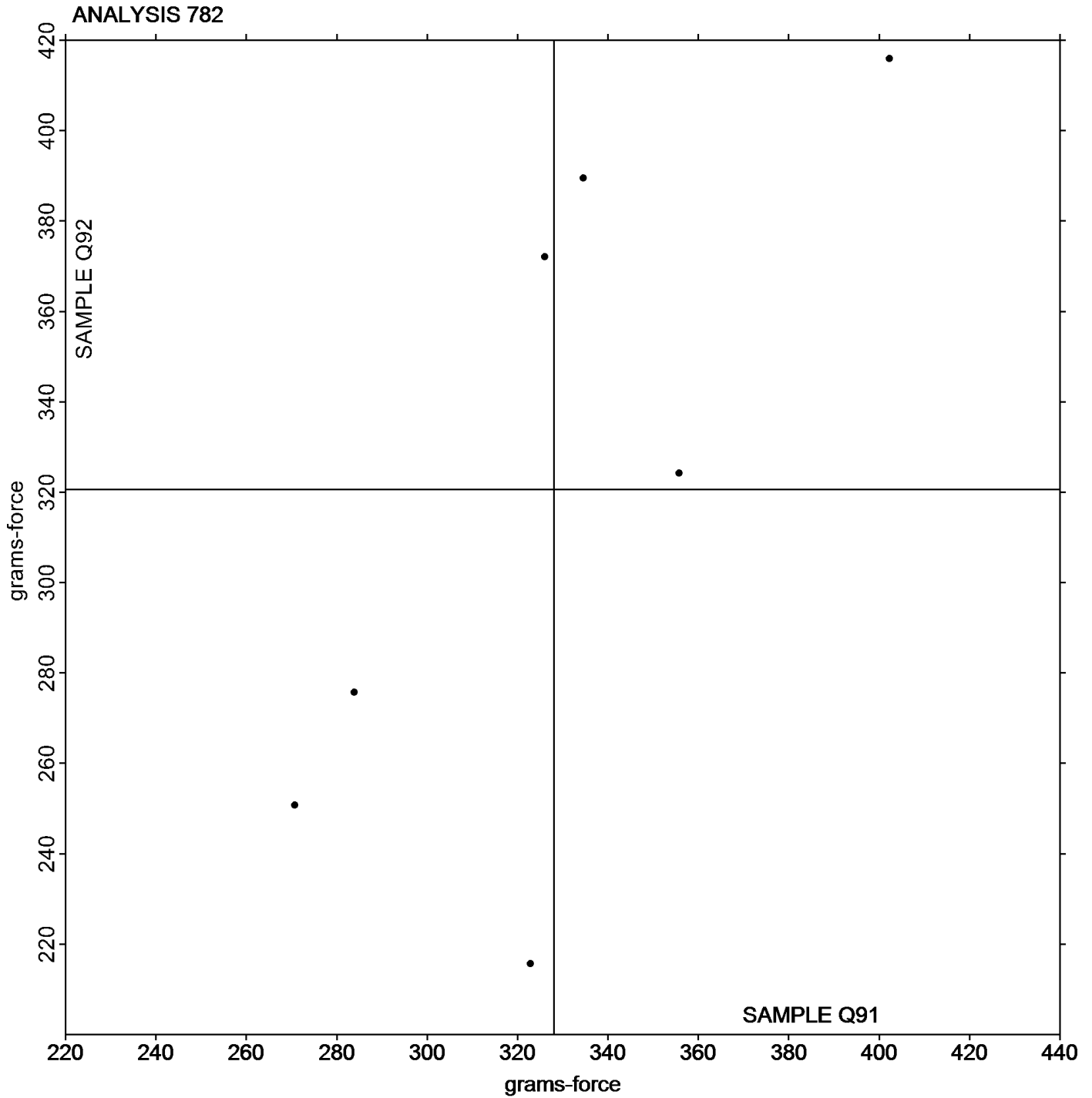
Analysis 782

Tear Resistance of Films

Report #126

2nd Qtr 2023

Grand Mean Sample Q91: 328.05 grams-force Grand Mean Sample Q92: 320.55 grams-force



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #126

Analysis 785

2nd Qtr 2023

Percent Haze of Film

WebCode	Data Flag	Sample D91			Sample D92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
323MMN	X	19.363	-6.592	-5.11	26.763	7.788	9.76	BJ
7QYTED		25.950	-0.004	0.00	18.338	-0.637	-0.80	BJ
9AL2PE		25.271	-0.683	-0.53	18.356	-0.618	-0.77	HL
AFY8A6		26.050	0.096	0.07	19.161	0.187	0.23	BJ
B8PYJV		25.325	-0.629	-0.49	19.275	0.300	0.38	BJ
BBTRGZ		25.913	-0.042	-0.03	19.558	0.583	0.73	BJ
C3CEEV		23.811	-2.143	-1.66	17.551	-1.423	-1.78	XR
CCWKTQ		25.163	-0.792	-0.61	19.250	0.275	0.35	BJ
D6YHHL		25.855	-0.099	-0.08	19.863	0.888	1.11	XR
EUBQ4D		27.176	1.222	0.95	19.689	0.714	0.90	XR
GCKCRT		26.350	0.396	0.31	18.988	0.013	0.02	BJ
GVW26Q		27.675	1.721	1.33	19.338	0.363	0.45	BJ
JNQ729		25.839	-0.115	-0.09	19.135	0.160	0.20	BJ
JTFLNU	*	22.688	-3.267	-2.53	16.775	-2.200	-2.76	HL
KCAJN2		25.225	-0.729	-0.56	19.000	0.025	0.03	BJ
KGNA3		26.438	0.483	0.37	18.575	-0.400	-0.50	BJ
LDJ7JL	X	91.075	65.121	50.44	91.650	72.675	91.08	BH
MABPRN		25.463	-0.492	-0.38	18.588	-0.387	-0.49	BJ
PCGDFX		27.163	1.208	0.94	20.050	1.075	1.35	BJ
QJTQXT		26.613	0.658	0.51	17.925	-1.050	-1.32	BJ
UJFNHV		27.575	1.621	1.26	18.750	-0.225	-0.28	BJ
UUHV9P		24.206	-1.748	-1.35	19.768	0.793	0.99	XX
VNA68V		27.038	1.083	0.84	19.350	0.375	0.47	BJ
XC4DMD		25.863	-0.092	-0.07	19.203	0.228	0.29	XX
ZDRYF9		28.301	2.347	1.82	19.933	0.958	1.20	XR

Summary Statistics		
	Sample D91	Sample D92
Grand Means	25.9542 Percent	18.9746 Percent
Std Dev Btwn Labs	1.2911 Percent	0.7979 Percent
Statistics based on 23 of 25 reporting participants		

Sample D91: LDPE & Sample D92: LDPE



Plastics Interlaboratory Testing Program

Analysis 785

Percent Haze of Film

Report #126

2nd Qtr 2023

Comments on Assigned Data Flags for Test #785

LDJ7JL (X) - Extreme data.

323MMN (X) - Data for sample D91 are low and data for sample D92 are high.

Key to Instrument Codes Reported by Participants

BH BYK-Gardner/Pacific Scientific Model XL-211

BJ BYK-Gardner Haze-Gard Plus/i

HL Hunterlab Ultrascan

XR X-Rite Spectrocolorimeter (any model)

XX Instrument make/model not specified by lab



Plastics Interlaboratory Testing Program

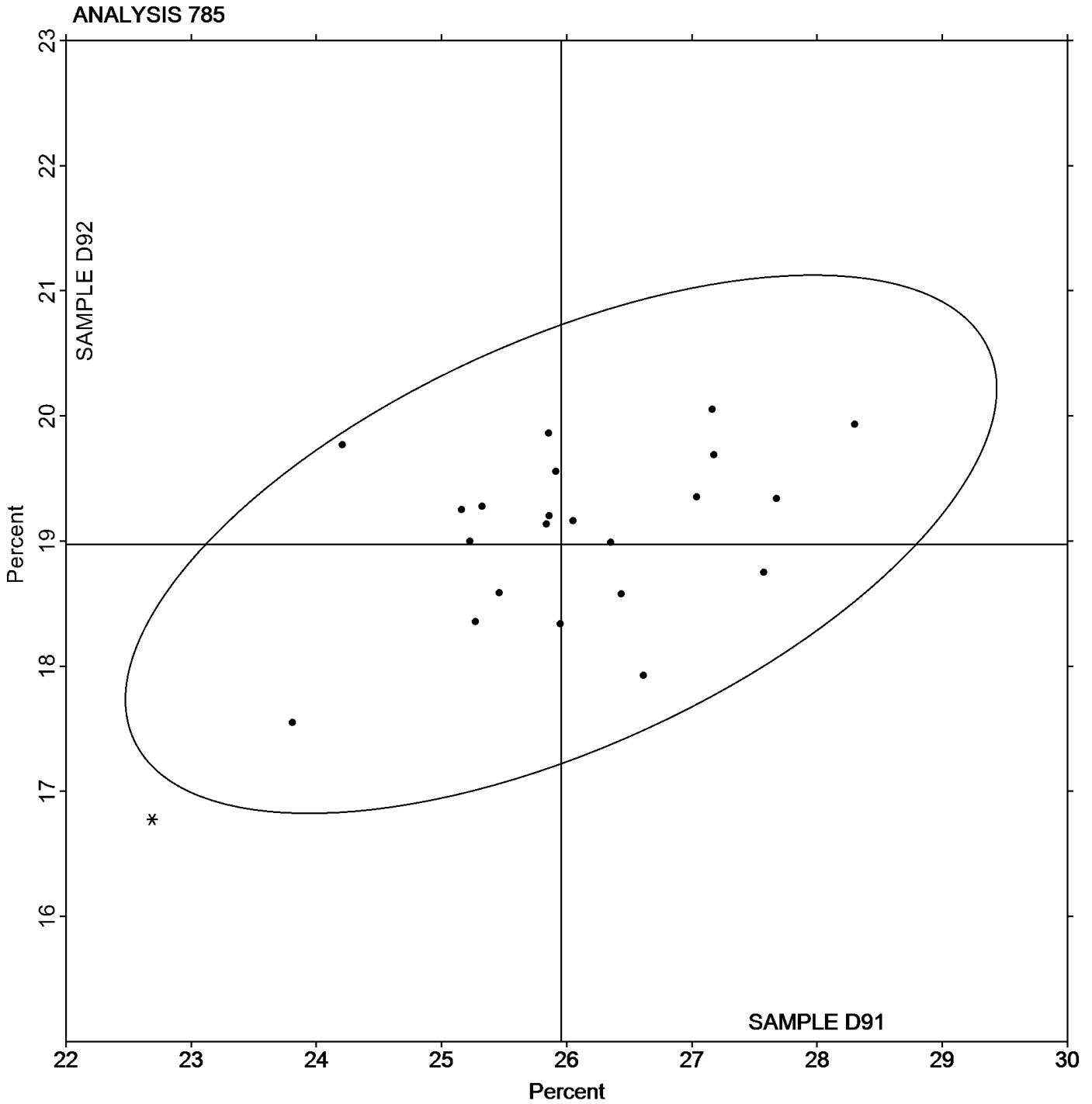
Analysis 785

Percent Haze of Film

Report #126

2nd Qtr 2023

Grand Mean Sample D91: 25.954 Percent Grand Mean Sample D92: 18.975 Percent





Plastics Interlaboratory Testing Program

Report #126

Analysis 786

2nd Qtr 2023

Total Luminous transmittance of film

WebCode	Data Flag	Sample D91			Sample D92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
7QYTED		93.64	1.24	0.96	94.18	1.72	1.25	BJ
9AL2PE		90.33	-2.07	-1.61	90.54	-1.92	-1.40	HL
AFY8A6		93.26	0.87	0.67	93.58	1.12	0.82	BJ
B8PYJV		92.55	0.15	0.12	92.70	0.24	0.18	BJ
BBTRGZ		92.73	0.33	0.26	92.85	0.39	0.29	BJ
C3CEEV		91.69	-0.71	-0.55	91.53	-0.93	-0.68	XR
CCWKTQ		93.68	1.28	0.99	93.65	1.19	0.87	BJ
EUBQ4D		92.56	0.16	0.12	92.64	0.18	0.13	XR
GCKCRT		93.20	0.80	0.62	93.50	1.04	0.76	BJ
GVW26Q		91.99	-0.41	-0.32	92.29	-0.17	-0.12	BJ
JNQ729		93.27	0.87	0.68	93.25	0.79	0.58	BJ
JTFLNU		90.36	-2.03	-1.58	90.58	-1.88	-1.37	HL
KCAJN2		93.50	1.10	0.86	93.40	0.94	0.69	BJ
KGNAX3	*	89.19	-3.21	-2.49	89.51	-2.94	-2.15	BJ
MABPRN		93.10	0.70	0.55	93.01	0.56	0.41	BJ
PCGDFX		92.99	0.59	0.46	93.19	0.73	0.53	BJ
QJTQXT	*	90.24	-2.16	-1.67	89.35	-3.11	-2.27	BJ
UJFNHV		94.05	1.65	1.28	93.99	1.53	1.12	BJ
UUHV9P		92.24	-0.16	-0.12	91.98	-0.48	-0.35	XX
VNA68V		93.03	0.63	0.49	93.29	0.83	0.61	BJ
XC4DMD		92.72	0.33	0.25	92.96	0.51	0.37	XX
ZDRYF9		92.42	0.02	0.02	92.09	-0.37	-0.27	XR

Summary Statistics		
	Sample D91	Sample D92
Grand Means	92.396 Percent	92.456 Percent
Std Dev Btwn Labs	1.289 Percent	1.370 Percent
Statistics based on 22 of 22 reporting participants		

Sample D91: LDPE & Sample D92: LDPE

Key to Instrument Codes Reported by Participants

- | | |
|---|--|
| BJ BYK-Gardner Haze-Gard Plus/i | HL Hunterlab Ultrascan XE |
| XR X-Rite Spectrocolorimeter (any model) | XX Instrument make/model not specified by lab |



Plastics Interlaboratory Testing Program

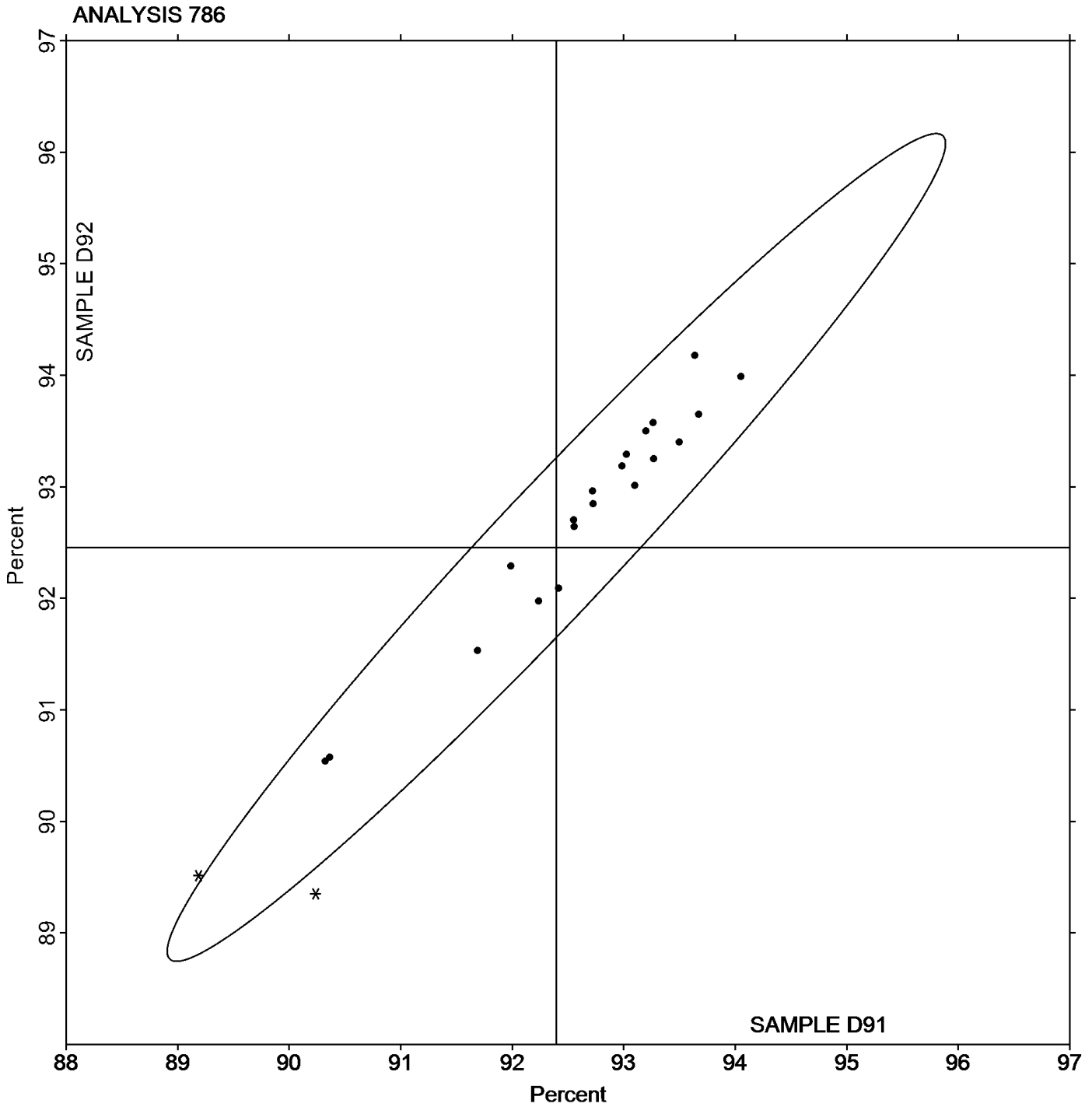
Analysis 786

Total Luminous transmittance of film

Report #126

2nd Qtr 2023

Grand Mean Sample D91: 92.396 Percent Grand Mean Sample D92: 92.456 Percent





Plastics Interlaboratory Testing Program

Report #126

Analysis 790

2nd Qtr 2023

Notched Izod Impact - ft.lbf/in

WebCode	Data Flag	Sample S91			Sample S92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
323MMN		10.40	-0.14	-0.19	10.68	0.12	0.17	CE
3EW7UK		10.55	0.00	0.00	10.60	0.04	0.05	CS
3MRBML		10.81	0.26	0.35	10.51	-0.06	-0.08	XX
6AXQYU		10.04	-0.51	-0.67	9.96	-0.61	-0.85	WZ
778J2X		11.04	0.49	0.65	10.96	0.40	0.55	TO
7XHY9Z		12.00	1.45	1.92	11.69	1.13	1.58	WZ
8CADNJ	*	8.86	-1.69	-2.24	9.46	-1.10	-1.55	TO
8JUV92	*	12.64	2.09	2.78	11.92	1.36	1.90	TO
8LFT9R	*	9.61	-0.94	-1.24	8.94	-1.62	-2.27	TM
9AL2PE		9.87	-0.68	-0.90	9.94	-0.62	-0.87	TM
AGAAW4	X	28.04	17.50	23.20	27.66	17.10	23.94	WZ
AHD7QD		10.79	0.24	0.32	10.73	0.17	0.23	WZ
B8PYJV		10.59	0.04	0.06	10.60	0.03	0.04	CE
B9Y7LN		10.68	0.14	0.18	11.18	0.62	0.86	TM
BETEHW		11.99	1.44	1.92	12.01	1.45	2.03	TO
CCWKTQ		10.90	0.36	0.47	11.01	0.45	0.62	TO
D846VQ		10.46	-0.09	-0.11	10.27	-0.30	-0.42	WZ
DYQNAP	X	2.22	-8.33	-11.04	2.20	-8.36	-11.71	TO
E3MPTH		10.39	-0.16	-0.21	10.24	-0.32	-0.45	WZ
EBV4UY		11.29	0.75	0.99	11.33	0.76	1.07	CE
F2LEBK		10.86	0.31	0.41	10.90	0.33	0.46	TO
HABNP9		11.42	0.87	1.16	11.71	1.15	1.60	TM
JJVBJA		11.00	0.45	0.60	11.22	0.66	0.92	TO
JNQ729		10.79	0.24	0.32	10.69	0.13	0.18	TY
JVM22T		10.09	-0.45	-0.60	9.93	-0.63	-0.89	TO
KF49H9		10.43	-0.12	-0.16	10.05	-0.51	-0.72	IN
KGNA3		10.45	-0.09	-0.12	10.56	0.00	0.00	WZ
L7KLE6		10.79	0.24	0.32	10.91	0.34	0.48	TY
M94TFD		10.03	-0.51	-0.68	9.68	-0.88	-1.24	BA
MAEXRF		10.76	0.22	0.29	10.77	0.21	0.29	TM
MM3WK4		9.39	-1.16	-1.54	9.26	-1.31	-1.83	TM
NFZHL3		11.38	0.83	1.10	11.42	0.86	1.20	TM
NLMZNX		11.53	0.98	1.30	11.87	1.31	1.83	WZ
PHF73X		10.06	-0.48	-0.64	10.04	-0.53	-0.74	WZ
PL4DUL		9.48	-1.07	-1.42	9.52	-1.04	-1.46	TO



Plastics Interlaboratory Testing Program

Report #126

Analysis 790

2nd Qtr 2023

Notched Izod Impact - ft.lbf/in

WebCode	Data Flag	Sample S91			Sample S92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
PN6LWB	*	9.20	-1.34	-1.78	10.09	-0.48	-0.67	CE
PUXJMM		9.37	-1.17	-1.56	10.11	-0.45	-0.63	TO
QJTQXT		10.57	0.02	0.03	10.50	-0.06	-0.09	CE
RURKEH		10.91	0.36	0.48	11.02	0.45	0.63	XX
T2YAEF		10.44	-0.10	-0.14	10.34	-0.22	-0.31	DY
ULMH43		9.93	-0.62	-0.82	9.97	-0.60	-0.84	TO
UMH29P		10.72	0.17	0.23	10.79	0.23	0.32	TO
WF6498		10.04	-0.51	-0.67	10.08	-0.49	-0.68	TO
WVLMZT		10.33	-0.22	-0.29	10.21	-0.36	-0.50	TO
XJGA72	X	6.29	-4.26	-5.65	6.60	-3.96	-5.55	TO
ZBJHRW		10.88	0.33	0.44	10.80	0.24	0.33	TO
ZGR8M4		10.29	-0.26	-0.34	10.35	-0.21	-0.29	XX

Summary Statistics		
	Sample S91	Sample S92
Grand Means	10.546 ft.lbf/in	10.565 ft.lbf/in
Std Dev Btwn Labs	0.754 ft.lbf/in	0.714 ft.lbf/in
Statistics based on 44 of 47 reporting participants		

Sample S91: ABS/PC & Sample S92: ABS/PC

Comments on Assigned Data Flags for Test #790

- DYQNAP (X) - Data for both samples are low. Possible Systematic Error.
- AGAAW4 (X) - Extreme data.
- XJGA72 (X) - Data for both samples are low. Possible Systematic Error.

Key to Instrument Codes Reported by Participants

BA Baldwin	CE Ceast
CS CSI	DY Dynatup
IN Instron	TM TMI
TO Tinius Olsen	TY Toyoseiki
WZ Zwick	XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

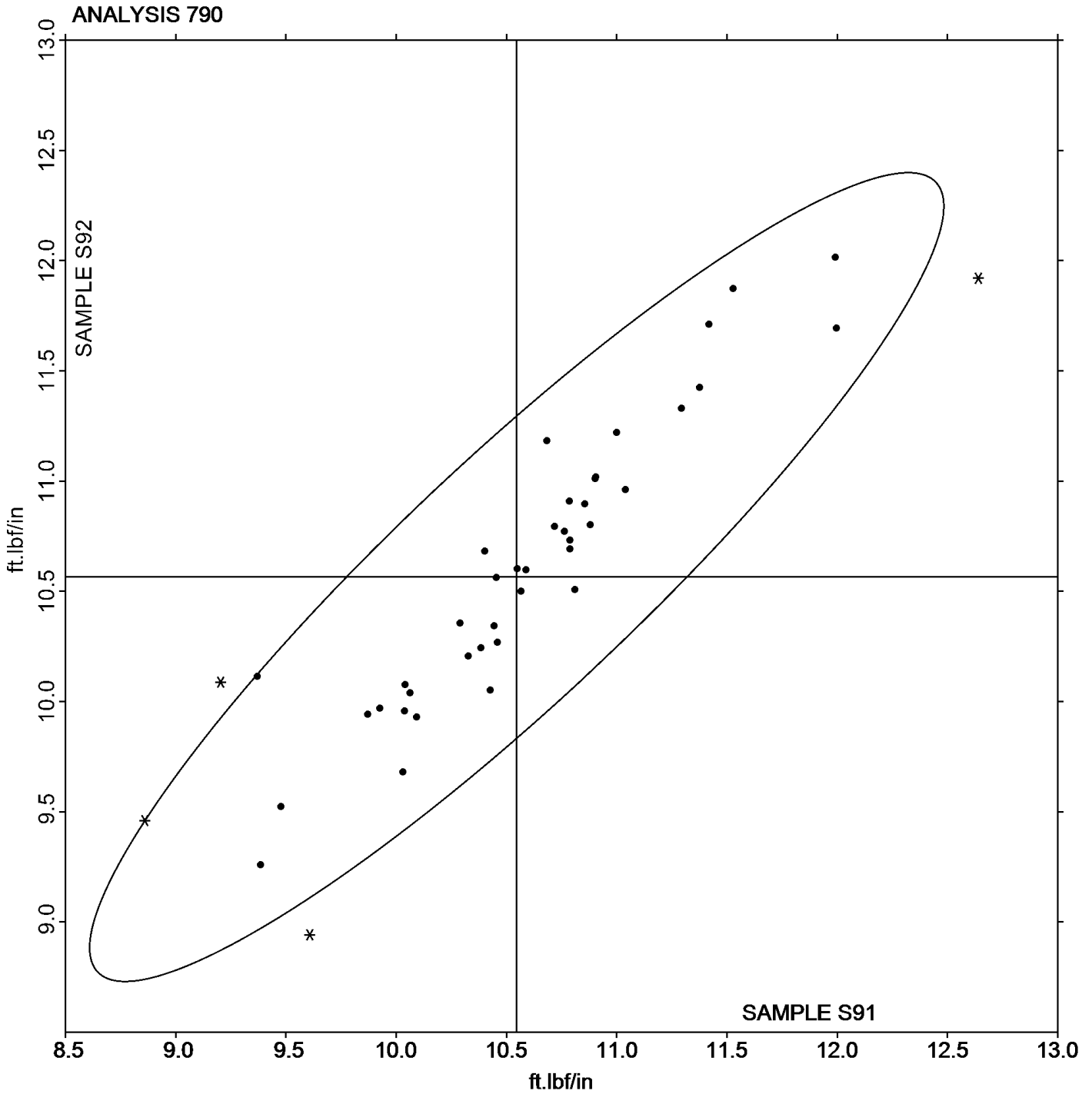
Analysis 790

Notched Izod Impact - ft.lbf/in

Report #126

2nd Qtr 2023

Grand Mean Sample S91: 10.546 ft.lbf/in Grand Mean Sample S92: 10.565 ft.lbf/in





Plastics Interlaboratory Testing Program

Report #126

Analysis 791

2nd Qtr 2023

Notched Izod Impact - kJ/m²

WebCode	Data Flag	Sample Z91			Sample Z92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3AWRFP	X	7.87	-1.38	-2.28	7.21	-2.04	-3.64	CE
3MRBML		8.38	-0.87	-1.44	8.68	-0.57	-1.02	XX
6AXQYU		9.25	-0.01	-0.01	9.33	0.08	0.15	WZ
7E7GXU		9.55	0.30	0.49	9.52	0.27	0.49	WZ
7HLF3V		7.97	-1.28	-2.12	8.08	-1.17	-2.09	XX
8JUV92	X	15.84	6.59	10.90	15.12	5.87	10.49	TO
8WA873		9.39	0.14	0.23	9.36	0.11	0.20	CE
9263MG	*	7.60	-1.66	-2.74	7.57	-1.68	-2.99	IE
A96CUZ		9.18	-0.07	-0.12	9.08	-0.17	-0.31	XX
AHD7QD		9.34	0.09	0.15	9.21	-0.04	-0.07	WZ
ANJUB8		9.35	0.09	0.15	9.51	0.26	0.47	TO
BVGP4Y		9.98	0.72	1.20	10.03	0.78	1.40	CE
CCWKTQ		8.90	-0.35	-0.58	9.17	-0.08	-0.14	TO
D3HJPW		10.34	1.08	1.79	10.37	1.12	2.01	CE
DANRCX		9.21	-0.05	-0.08	9.05	-0.20	-0.35	XX
DMCTR4		9.24	-0.01	-0.02	8.93	-0.32	-0.58	CE
E3MPH		9.32	0.06	0.10	9.24	-0.01	-0.02	WZ
E99APQ		8.94	-0.31	-0.52	9.13	-0.12	-0.21	TO
EU9QF8	*	8.65	-0.60	-1.00	9.30	0.05	0.09	TO
JNQ729		9.30	0.04	0.07	9.34	0.09	0.16	XX
KJRDK		8.96	-0.30	-0.49	8.88	-0.37	-0.66	TO
L7KLE6		9.52	0.27	0.44	9.45	0.20	0.37	TY
M8LH8R		10.22	0.97	1.60	10.42	1.17	2.09	WZ
MH93JW		9.85	0.59	0.98	9.75	0.50	0.90	WZ
PAKRXL		10.33	1.08	1.78	10.04	0.79	1.41	TO
QJTQXT		9.72	0.47	0.77	9.56	0.31	0.56	CE
QQABWY		9.74	0.49	0.80	9.76	0.51	0.91	TO
RKFWKX		9.14	-0.11	-0.19	8.70	-0.55	-0.98	WZ
ULMH43		9.23	-0.03	-0.05	9.03	-0.22	-0.39	TO
UZ4Y4X		9.04	-0.21	-0.35	9.09	-0.16	-0.29	IN
VP2GTG		9.68	0.43	0.71	9.20	-0.04	-0.08	IN
VY7XWL		9.91	0.65	1.08	9.86	0.61	1.08	CE
WQQQDM		8.72	-0.54	-0.89	9.00	-0.25	-0.45	CE
WTVUCK		9.06	-0.20	-0.32	9.12	-0.13	-0.22	TO
WVKZWG		9.17	-0.09	-0.14	8.94	-0.31	-0.55	IN



Plastics Interlaboratory Testing Program

Report #126

Analysis 791

2nd Qtr 2023

Notched Izod Impact - kJ/m²

WebCode	Data Flag	Sample Z91			Sample Z92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
XJGA72	X	5.32	-3.94	-6.52	5.39	-3.86	-6.89	TO
YZTVD3		8.38	-0.88	-1.45	8.82	-0.43	-0.77	TO
ZGR8M4		9.34	0.09	0.14	9.17	-0.08	-0.15	XX

Summary Statistics		
	Sample Z91	Sample Z92
Grand Means	9.254 kJ/m ²	9.249 kJ/m ²
Std Dev Btwn Labs	0.604 kJ/m ²	0.559 kJ/m ²
Statistics based on 35 of 38 reporting participants		

Sample Z91: HIPS & Sample Z92: HIPS

Comments on Assigned Data Flags for Test #791

- 8JUV92 (X) - Data for both samples are high. Possible Systematic Error.
- 3AWRFP (X) - Data for sample Z92 are low. Inconsistent within the determinations of sample Z92.
- XJGA72 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample Z92.

Key to Instrument Codes Reported by Participants

- | | |
|---|-----------------------------|
| CE Ceast | IE International Equipments |
| IN Instron | TO Tinius Olsen |
| TY Toyoseiki | WZ Zwick |
| XX Instrument manufacturer not specified by lab | |



Plastics Interlaboratory Testing Program

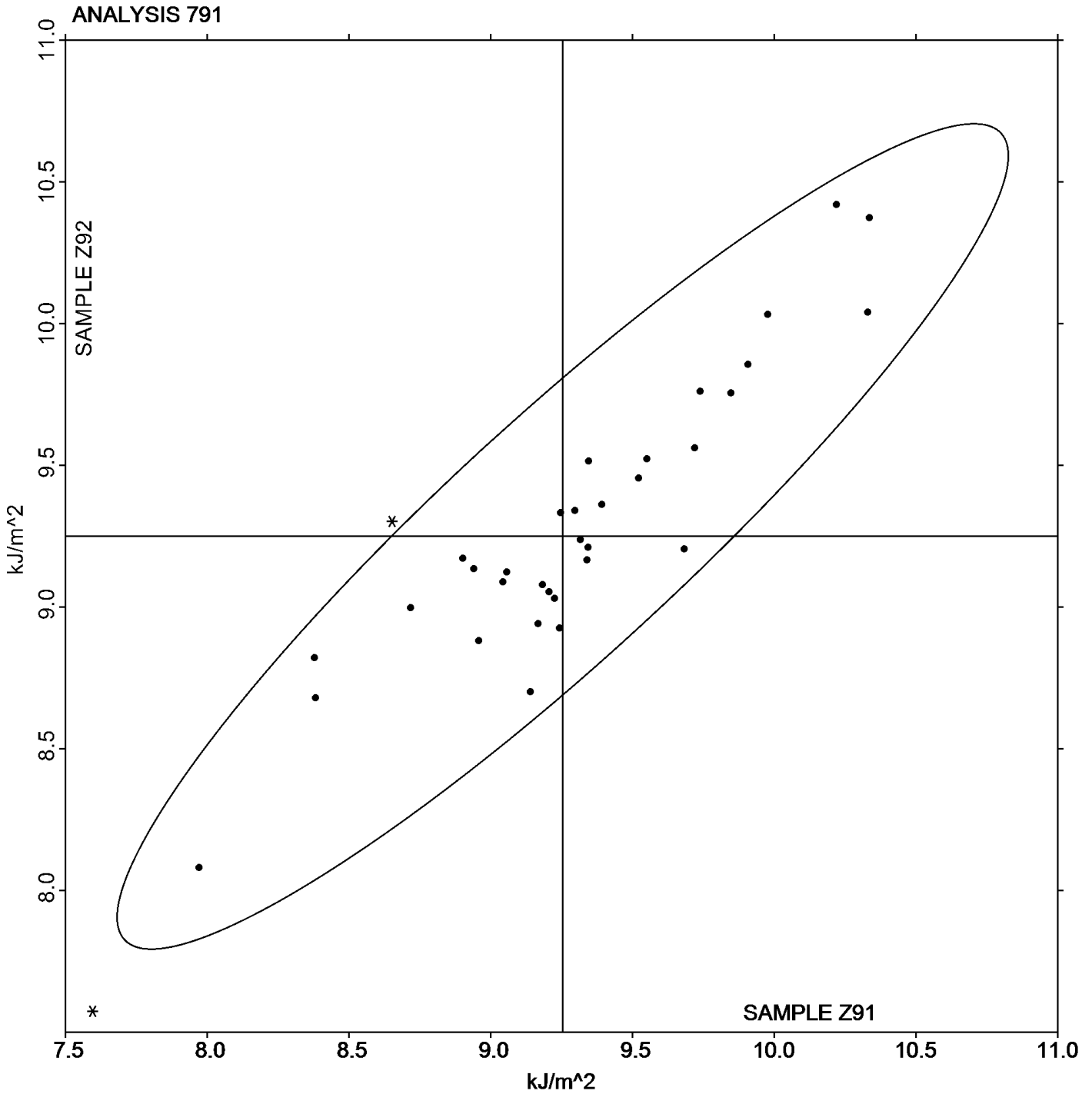
Analysis 791

Notched Izod Impact - kJ/m^2

Report #126

2nd Qtr 2023

Grand Mean Sample Z91: 9.2540 kJ/m^2 Grand Mean Sample Z92: 9.2491 kJ/m^2





Plastics Interlaboratory Testing Program

Report #126

Analysis 792

2nd Qtr 2023

Notched Charpy Impact - kJ/m²

WebCode	Data Flag	Sample M91			Sample M92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3AWRFP		9.87	0.32	0.58	10.14	0.59	1.15	XX
3MRBML		8.34	-1.21	-2.21	8.83	-0.72	-1.40	XX
6AXQYU		9.55	0.01	0.01	9.45	-0.10	-0.19	WZ
7E7GXU		9.21	-0.34	-0.62	9.09	-0.45	-0.88	WZ
7FQUE7	*	10.77	1.22	2.23	10.98	1.43	2.78	WZ
7HLF3V		8.57	-0.98	-1.78	9.12	-0.43	-0.83	XX
7NKY88		9.26	-0.28	-0.52	9.31	-0.24	-0.46	CE
8WA873		9.47	-0.08	-0.15	9.92	0.37	0.72	CE
9263MG	X	19.77	10.22	18.67	16.29	6.74	13.10	XX
AHD7QD		9.52	-0.03	-0.05	9.31	-0.23	-0.46	WZ
ANJUB8		9.11	-0.44	-0.81	9.64	0.10	0.19	TO
AVH3AF		9.85	0.30	0.56	9.45	-0.10	-0.19	CE
BETEHW		10.10	0.55	1.00	10.06	0.52	1.00	TO
BVGP4Y		9.32	-0.23	-0.41	9.35	-0.20	-0.39	CE
CCWKTQ		9.64	0.09	0.16	9.34	-0.21	-0.41	TO
D3HJPW		10.32	0.78	1.42	9.81	0.27	0.52	CE
DANRCX		9.72	0.18	0.32	9.41	-0.13	-0.26	WZ
DMCTR4		9.71	0.16	0.30	9.17	-0.37	-0.73	CE
E3MPTH		9.45	-0.10	-0.17	9.49	-0.06	-0.11	WZ
E99APQ		9.15	-0.40	-0.73	9.08	-0.47	-0.91	TO
EBV4UY		10.04	0.49	0.90	10.04	0.49	0.95	IN
EU9QF8		9.78	0.23	0.42	9.58	0.03	0.06	TO
JNQ729		9.26	-0.29	-0.52	9.30	-0.25	-0.49	TY
JZJPFE		8.89	-0.66	-1.21	8.93	-0.62	-1.20	WZ
KGNA3		9.91	0.36	0.66	9.90	0.36	0.69	WZ
KJRDK		9.10	-0.45	-0.81	9.12	-0.42	-0.82	TO
LKG789		10.07	0.52	0.95	9.84	0.29	0.57	XX
M6K3RU		9.45	-0.10	-0.17	9.81	0.26	0.51	TO
M8LH8R		9.32	-0.23	-0.41	9.02	-0.53	-1.02	WZ
MH93JW		10.04	0.49	0.89	10.33	0.78	1.51	WZ
MZBP9A		9.40	-0.15	-0.27	9.26	-0.29	-0.56	WZ
PAKRXL		9.44	-0.10	-0.19	9.82	0.28	0.54	TO
PHF73X		9.70	0.15	0.27	9.28	-0.27	-0.52	WZ
PL4DUL		9.06	-0.49	-0.90	9.13	-0.41	-0.80	TO
QJTQXT		9.36	-0.18	-0.33	9.26	-0.28	-0.55	CE



Plastics Interlaboratory Testing Program

Report #126

Analysis 792

2nd Qtr 2023

Notched Charpy Impact - kJ/m²

WebCode	Data Flag	Sample M91			Sample M92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
RKFWKX		9.28	-0.27	-0.49	9.40	-0.15	-0.28	WZ
RURKEH	X	12.25	2.70	4.94	12.25	2.71	5.25	XX
T2MZHG		10.16	0.61	1.11	9.98	0.43	0.84	CE
UJFNHV		9.12	-0.43	-0.78	8.78	-0.76	-1.48	TO
UL3CRB		9.94	0.39	0.71	9.94	0.40	0.77	WZ
UZ4Y4X		9.91	0.37	0.67	9.80	0.26	0.50	IN
VLZYME		9.45	-0.10	-0.18	9.62	0.08	0.15	WZ
VP2GTG		9.97	0.42	0.77	9.78	0.23	0.45	IN
VY7XWL		10.33	0.79	1.43	10.26	0.72	1.39	CE
WQQQDM		9.21	-0.34	-0.62	9.58	0.03	0.06	CE
WVLMZT		9.17	-0.37	-0.68	9.28	-0.27	-0.52	TO
XJGA72	*	11.23	1.68	3.07	10.98	1.44	2.79	TO
XVZBT8		8.72	-0.82	-1.50	8.61	-0.94	-1.82	TO
YZTVD3		8.79	-0.76	-1.38	8.68	-0.87	-1.69	TO
ZGR8M4		8.87	-0.68	-1.23	9.32	-0.23	-0.44	XX
ZHH2X8		9.93	0.38	0.69	10.20	0.65	1.26	WZ

Summary Statistics		
	Sample M91	Sample M92
Grand Means	9.547 kJ/m ²	9.546 kJ/m ²
Stnd Dev Btwn Labs	0.548 kJ/m ²	0.515 kJ/m ²
Statistics based on 49 of 51 reporting participants		

Sample M91: HIPS & Sample M92: HIPS

Comments on Assigned Data Flags for Test #792

RURKEH (X) - Data for both samples are high. Possible Systematic Error.

9263MG (X) - Data for both samples are high. Inconsistent within the determinations of both samples.

Key to Instrument Codes Reported by Participants

CE	Ceast	IN	Instron
TO	Tinius Olsen	TY	Toyoseiki
WZ	Zwick	XX	Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

Analysis 792

Notched Charpy Impact - kJ/m^2

Report #126

2nd Qtr 2023

Grand Mean Sample M91: 9.5473 kJ/m^2 Grand Mean Sample M92: 9.5465 kJ/m^2

