



Collaborative Testing Services, Inc. Containerboard Interlaboratory Testing Program

Participant Summary Report #540 (K) - September 2014

[Introduction to the Containerboard Program](#)

[Explanation of Tables and Definitions of Terms](#)

Analysis	Sample Lot	Analysis Name
201	BOX8	Box Compression Strength, Corrugated Boxes
202	ECT7	Edgewise Compressive Strength, Wax (T811), Corrugated board
203	ECT7	Edgewise Compressive Strength by Clamp (T839), Corrugated board
205	42B4	Mullen Burst of Linerboard, 42 lb Linerboard
206	69C1	Mullen Burst of Linerboard, 69 lb Linerboard
215	42B4	Ring Crush of Linerboard, Rigid Platen Type, 42 lb Linerboard
216	69C1	Ring Crush of Linerboard, Rigid Platen Type, 69 lb Linerboard
223	42B4	STFI of Linerboard, 42 lb Linerboard
224	69C1	STFI of Linerboard, 69 lb Linerboard
228	69C	Roughness - Stylus Method, 69 lb Linerboard
231	36Z	Internal Bond Strength, Linerboard, 36 lb Linerboard
234	36Z	Coefficient of Static Friction - Inclined Plane, 36 lb Linerboard
237	36Z	Air Resistance - Gurley Method, Linerboard, 36 lb Linerboard
240	CM73	Flat Crush Strength (CMT) of Medium, 26 lb Corrugating Medium
250	CM73	Fluted Crush of Medium, 26 lb Corrugating Medium
255	CM73	Ring Crush of Medium, 26 lb Corrugating Medium
261	CM73	STFI of Medium, 26 lb Corrugating Medium

ABOUT CTS

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, 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 80 countries, currently participate in the CTS programs.

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Collaborative Testing Services, Inc.
CONTAINERBOARD INTERLABORATORY TESTING PROGRAM

INTRODUCTION

The Interlaboratory Testing Program for Containerboard is operated and maintained by Collaborative Testing Services, Inc. (CTS), with technical guidance provided by the Containerboard Group of the American Forest & Paper Association. The tests are conducted on a monthly basis.

For these tests samples of linerboard and corrugating medium, that each have been separately randomized from narrow rolls, are distributed for testing weekly. One weight of medium (26 lb.) is used for Concora Flat Crush Strength, Corrugated Fluted Crush Strength, Ring Crush Strength, and STFI Compression. Two weights of linerboard are tested each month for Mullen Burst, Ring Crush, and STFI Compression: 42 lb. - every month; 36 lb. and 69 lb. - alternate months. The participants return their test results for analysis and receive a monthly report.

Please refer to the section, "EXPLANATION OF TABLES", for definitions of terms and guidelines to interpreting the results.

USE OF AVERAGE MEAN AS A COLLABORATIVE REFERENCE VALUE

The samples of linerboard and corrugating medium, which have been randomized and placed in sealed packages for distribution in this program, may be used as collaborative reference materials. The values most representative of each material are the Cumulative Grand Means in the latest reports, given at the bottom right of each table. Comparisons can only be made within one lot of material; therefore check your measurements against the Cumulative Grand Means with the same lot code as on the packages being tested.

Material	Lot Code	Dates in Use
36# Linerboard	36Z1 36Z2	June 2010 - December 2011 February 2012 -
42# Linerboard	42B2 42B3	June 2012 - April 2013 June 2013 -
69# Linerboard	69A2 69C1	January 2013 - September 2013 November 2013 -
Corrugating Medium	CM73	December 2012 -

EXPLANATION OF TABLES

Each analysis is divided into three time spans. On the left side of the table are the individual laboratory results for each week of the month; in the center are each lab's statistical data for the month; and on the right are each lab's cumulative data for up to 16 weeks. At the bottom of the table are the consensus statistics for all the participants for each of the three time spans.

Definitions of Terms Used

Weekly Results

Laboratory Data

WebCode - A six character laboratory identifier used to maintain information on a confidential basis. The WebCode is unique for each analysis and will change for each report. Your WebCode can be found in your Individual Report (Current Month Performance Report) and your datasheet.

Weekly Means - The average of the test results obtained by the participant for each week that data were reported.

Consensus Data

Wk Mean - For each week, the average of the Means for all the participants, excluding those laboratories flagged with an 'X'.

Avg SDr - For each week, the average of the within-laboratory standard deviations (SDr's) for all the participants, excluding those laboratories flagged with an 'X'. The Avg SDr is an indication of the variation of measurements within an average laboratory.

SD btwn Labs - For each week, the standard deviation of the laboratory Means about the Wk Mean, excluding those laboratories flagged with an 'X'. The SD LABS is an indication of the precision of measurement between the laboratories.

Labs Incl - The number of laboratory Means included in the Wk Mean for that week.

Labs Excl - The number of laboratory Means reported but excluded from the Wk Mean for that week because of outlying results ('X' following Mean).

Labs not rcvd - The number of laboratories failing to report for that week.

Monthly Results

Laboratory Data

Mean - For each laboratory, the average of all the weekly Means reported for this month.

CPV - **Comparative Performance Value**, an indication of how well a laboratory's Mean agrees with the other participants. The CPV is a ratio indicating the number of standard deviations from the consensus mean (Monthly Mean). The closer a laboratory's CPV is to zero, the more consistent its results are with the other participants' data.

SDr - For each laboratory, the average of the weekly within-lab standard deviations (SDr's) for all reported Weekly Means this month.

SD Wks - The standard deviation among the laboratory's weekly Means, including those Means flagged with an 'X'. The SD Wks is an indication of that laboratory's ability to obtain constant results from week to week.

Consensus Data

Month Mean - The average of the Means for all the participants, excluding those laboratories flagged with an 'X,' reporting data for this month.

Avg SDr - For the current month, the average of the within-laboratory standard deviations (SDr's) for all the participants, excluding those laboratories flagged with an 'X'.

SD btwn Labs - For the current month, the standard deviation of the laboratory Means about the Month Mean, excluding those laboratories flagged with an 'X'.

SD Wks - For the current month, the average of the laboratory between week standard deviations (SD Wks') for all the participants.

Labs Incl - The number of laboratory Means included in the Month Mean.

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Cumulative Results

Laboratory Data

- Mean - For each lab, the average of all the monthly Means reported for the weeks shown.
- CPV - **Comparative Performance Value**, an indication of how well a laboratory's cumulative mean agrees with the other participants. The CPV is a ratio indicating the number of standard deviations from the consensus mean (Monthly Mean).
- SDr - For each laboratory, the average of the weekly within-lab standard deviations (SDr's) for the weeks shown.
- SD Wks- The standard deviation among the laboratory's weekly Means for the weeks shown, including those Means flagged with an 'X'. The SD Wks is an indication of that laboratory's ability to obtain constant results from week to week.
- Wks - The number of weeks included in the cumulative period.

Consensus Data

- Grand Mean - The average of the Means for all the participants, excluding those laboratories flagged with an 'X,' reporting data for the number of weeks included in the cumulative period.
- Avg SDr - For the cumulative period, the average of the within-laboratory standard deviations (SDr's) for all the participants, excluding those laboratories flagged with an 'X'.
- SD btwn Labs - For the cumulative period, the standard deviation of the laboratory Means about the Month Mean, excluding those laboratories flagged with an 'X'.
- SD Wks - For the cumulative period, the average of the laboratory between week standard deviations for all the participants.
- Labs Incl - The number of laboratory Means included in the Grand Mean.

Any laboratory that receives a 'flag' following a mean or standard deviation should refer to the chart below for an explanation of the data flag symbol:

Flag

Explanation

Data Flags " X " and " * " indicate a laboratory's performance on an average value differed from the consensus.

Data Flags " H " and " L " indicate a laboratory's performance on a standard deviation differed from the consensus.

Flags assigned to Weekly Means, Monthly Mean and Cumulative Mean:

- X** Excluded from the weekly means, monthly means and/or the cumulative mean. Immediate review of data and/or testing procedure is required.
- *** Included in the weekly means, monthly means and/or the cumulative mean; however, lab should review testing procedure and monitor future results.

Flags assigned to Weekly Means:

- H** Indicates high within-laboratory standard deviation. The laboratory SDr for each week is not shown, but laboratory average SDr and consensus average SDr values are shown.
- L** Indicates low within-laboratory standard deviation. The laboratory SDr for each week is not shown, but laboratory monthly average SDr and consensus average SDr values are shown.

Flags assigned to Monthly SD Wks and Cumulative SD Wks:

- H** Indicates high variability between weekly means (high week-to-week variation).
- L** Indicates low variability between weekly means (low week-to-week variation).



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
2QCZAL	674.0	-2.15 *	26.3	737.8	-0.77	44.4	4	LL
3UAUQN	815.6	0.76	25.4	830.9	1.22	34.8	4	ER
7CGAFK	818.2	0.81	47.1	822.3	1.04	32.6	4	ER
9BGN2J	810.4	0.65	44.7	755.0	-0.40	61.4	3	EX
B4CJ9Q	768.8	-0.20	91.0	748.7	-0.54	66.0	4	ER
B88HEA	798.2	0.40	19.8	751.5	-0.48	18.8	4	TB
BBXDU2	822.0	0.89	13.8	844.9	1.52	25.5	4	LM
BMLLZ4	764.0	-0.30	31.6	773.1	-0.01	59.5	4	LL
CBKKYJ	846.0	1.38	23.6	836.7	1.34	27.8	3	LH
CQJH6P	752.4	-0.54	50.1	765.8	-0.17	49.2	4	ES
E3NHUD	802.2	0.48	62.9	766.4	-0.16	44.1	3	TO
EK3WAM	818.5	0.82	30.5	769.0	-0.10	45.1	4	ER
EK4UKJ	711.0	-1.39	32.1	709.3	-1.38	40.6	3	LL
K4YG8A	697.5	-1.67	32.3	725.6	-1.03	31.1	4	LG
K8ERKD	809.9	0.64	82.9	802.7	0.62	80.9	4	LS
RZDYC6	773.6	-0.11	86.1	792.8	0.41	65.0	4	LG
V4JZFX	725.2	-1.10	18.0	669.1	-2.24*	44.5	4	LH
WP6NGN	766.6	-0.25	43.6	772.3	-0.03	37.0	3	LG
WWFD4N	845.3	1.37	28.1	845.3	1.53	28.1	1	LS
ZEPC2H	755.6	-0.48	51.7	756.2	-0.38	63.5	2	ER

Consensus (All Labs) Results

Month Mean	778.75	Grand Mean	773.76
Avg SDr	47.66	Avg SDr	47.77
SD btwn Labs	48.65	SD btwn Labs	46.80
Labs Incd	20	Labs Incd	20

Consensus By Method

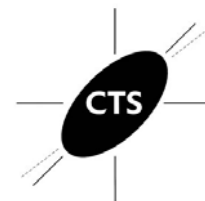
Test Method	Group Mean	SD btwn Group	Difference from Grand Mean	Labs Included
Hot melt adhesive sealing	784.91	52.34	6.16	6
Clip sealing	774.41	50.35	4.34	13
Tape sealing	798.20	0.00	19.45	1

Containerboard Interlaboratory Testing Program
Analysis 201
Top to Bottom Box Compression Strength, Corrugated Boxes - BOX8
TAPPI Official Test Method T804



Instrument Code List as Reported by the Labs

(ER) - Emerson 6200 Series	(ES) - Emerson 8510
(EX) - Emerson Apparatus (Model not specified)	(LG) - TLS / L.A.B. Validator Series
(LH) - L.A.B. Compression Tester Model #10610	(LL) - Lansmont 76-5K
(LM) - Lansmont 122-15k	(LS) - Lansmont Squeezer
(TB) - TMI Monitor/Compression Tester, Model 17-70	(TO) - Tinius Olsen Model not specified



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
6TB9DM	41.4	0.41	1.2	41.1	0.56	1.1	2	TB
7CGAFK	42.8	0.93	1.1	41.6	0.78	1.5	4	EN
8D9FJH	42.5	0.83	1.2	40.2	0.19	1.7	4	TB
CBKKYJ	36.3	-1.43	1.0	37.0	-1.08	0.9	2	TC
DTK6XJ	42.3	0.73	1.6	42.3	1.02	1.6	1	TM
ER4F47	37.2	-1.08	1.3	36.5	-1.30	1.3	4	LC
ERM2XG	40.8	0.22	2.8	39.2	-0.21	3.8	4	TD
K8ERKD	39.8	-0.14	2.5	39.5	-0.11	1.8	4	LD
RNJPLP	34.7	-2.01 *	1.6	34.8	-1.99	2.2	4	XX
T42Q8K	42.2	0.72	1.2	42.2	1.01	1.2	1	LD
WP6NGN	42.8	0.93	1.8	42.3	1.04	2.9	3	LC
WWFD4N	39.9	-0.11	1.4	39.9	0.09	1.4	1	EM

Consensus (All Labs) Results			
Month Mean	40.23	Grand Mean	39.71
Avg SDr	1.64	Avg SDr	1.96
SD btwn Labs	2.76	SD btwn Labs	2.48
Labs Incd	12	Labs Incd	12

Instrument Code List as Reported by the Labs

(EM) - Emerson 1200 Series

(EN) - Emerson 2200

(LC) - L&W Crush Tester 48

(LD) - L&W Crush Tester 248

(TB) - TMI Monitor/Compression Tester, Model 17-70

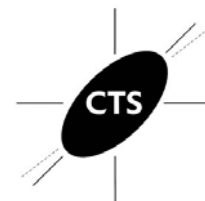
(TC) - TMI Monitor/Compression Tester, Model 17-37

(TD) - TMI Digital Crush Tester, Model 17-09

(TM) - TMI/Hinde & Dausch

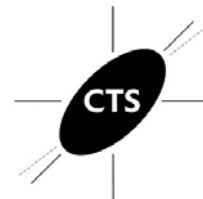
(XX) - Instrument make/model not specified by lab

Containerboard Interlaboratory Testing Program
Analysis 203
Edgewise Compressive Strength by T839, Corrugated board - ECT7
TAPPI T839



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
2D7MDV	41.9	0.08	1.7	43.4	0.92	1.6	2	LC
2QCZAL	41.2	-0.24	1.1	41.6	-0.06	1.4	4	BU
3A2GBU	42.3	0.24	2.1	42.4	0.37	1.5	4	LC
3UAUQN	40.5	-0.54	1.5	40.6	-0.66	1.2	4	EM
44WYFE	39.4	-1.07	1.3	39.4	-1.33	1.3	1	LD
48WBAU	40.9	-0.36	1.3	39.6	-1.20	2.3	4	LD
7CGAFK	44.0	1.05	1.3	43.7	1.07	1.4	4	EN
8D9FJH	40.6	-0.50	0.9	41.8	0.05	1.3	4	TG
9BGN2J	40.6	-0.50	0.9	40.7	-0.58	1.4	4	TL
AEFFTG	44.3	1.14	1.1	43.0	0.69	1.1	2	TC
B4CJ9Q	44.4	1.20	1.0	43.9	1.19	1.6	4	LD
B88HEA	45.0	1.48	0.7	42.9	0.67	0.6	3	LC
BBXDU2	41.8	0.03	1.2	41.7	-0.01	1.4	4	EM
CBKKYJ	38.4	-1.51	1.3	40.6	-0.64	1.1	2	TC
CQJH6P	44.0	1.03	1.3	43.8	1.14	1.3	4	LD
D6F436	40.7	-0.46	1.1	40.7	-0.58	1.1	1	TM
EK3WAM	43.1	0.60	1.9	43.1	0.76	1.7	4	EN
EK4UKJ	41.0	-0.32	1.4	41.2	-0.32	2.2	3	LC
ER4F47	42.4	0.30	1.8	41.2	-0.32	1.1	4	LC
K4YG8A	39.0	-1.23	1.3	39.3	-1.34	2.3	4	EM
K8ERKD	41.7	0.00	2.5	42.3	0.31	1.6	4	LD
QD2NQP	40.2	-0.69	0.8	40.2	-0.86	0.8	4	LC
QLJY26	40.8	-0.42	1.2	40.5	-0.71	1.3	4	TK
R9QWX4	42.9	0.54	2.5	42.9	0.66	2.1	3	LC
RHB4V8	42.1	0.15	1.0	43.3	0.89	1.2	4	CT
V4JZFX	38.0	-1.70	2.5	38.0	-2.09*	2.3	4	EM
V6DK84	41.4	-0.13	1.4	42.0	0.15	1.5	4	EX
W82D37	41.5	-0.10	1.3	43.2	0.79	1.1	4	LD
WM9DT2	45.2	1.59	1.3	43.4	0.95	1.1	4	TG
WP6NGN	42.9	0.53	2.2	42.4	0.39	2.2	3	LC
WWFD4N	44.6	1.28	0.8	44.6	1.57	0.8	1	EM
YKUTWW	36.7	-2.28*	1.2	38.2	-1.98	0.8	4	LC
YQMTBT	38.7	-1.39	1.2	38.3	-1.91	1.2	2	WK
ZEPC2H	46.5	2.16*	1.1	44.2	1.37	1.1	2	TD
ZVEDZU	41.8	0.01	3.3	42.9	0.63	2.1	4	XX

Containerboard Interlaboratory Testing Program
 Analysis 203
Edgewise Compressive Strength by T839, Corrugated board - ECT7
 TAPPI T839



Consensus (All Labs) Results

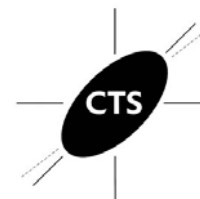
Month Mean	41.73	Grand Mean	41.74
Avg SDr	1.55	Avg SDr	1.50
SD btwn Labs	2.21	SD btwn Labs	1.79
Labs Incl	35	Labs Incl	35

Instrument Code List as Reported by the Labs

(BU) - Buchel Digital Crush Tester	(CT) - Con-Ten
(EM) - Emerson 1200 Series	(EN) - Emerson 2200
(EX) - Emerson (model not specified)	(LC) - L&W Crush Tester 48
(LD) - L&W Crush Tester 248	(TC) - TMI Monitor/Compression Tester, Model 17-37
(TD) - TMI Digital Crush Tester, Model 17-09	(TG) - TMI Digital Crush Tester, 17-76
(TK) - TLS Compression Tester, Model 5184	(TL) - Tech-Lab Systems Compression
(TM) - TMI/Hinde & Dausch	(WK) - Zwick Z005 Crush Tester
(XX) - Instrument make/model not specified by lab	



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
2UFNWP	102.3	102.5	101.9	103.7	102.6	-0.58	8.6	0.8	101.2	-0.87	9.7	8.5 H	14	TB
37QEHB	102.9	102.9	102.3	103.8	103.0	-0.48	8.0	0.6	104.3	0.02	9.1	2.4	16	LZ
48WBAU	108.5 L	105.3	100.8	98.4	103.3	-0.39	8.7	4.5	104.0	-0.06	9.7	2.9	15	AA
4N2T7K	105.1	104.4	101.8	106.9	104.6	0.01	11.5	2.1	104.3	0.01	10.3	2.6	16	LC
6TB9DM	99.1	96.5 *	101.5	96.6	98.4	-1.87	8.6	2.4	99.5	-1.36	9.5	3.2	16	LA
77UA9K	107.1	106.5	104.6	104.6	105.7	0.37	10.5	1.3	105.9	0.48	10.6	2.1	16	LZ
77UDXP	109.1	107.8	109.5	111.1	109.4	1.50	9.8	1.4	103.3	-0.25	10.3	4.8	16	LA
7M38RJ	106.4	106.4 L	104.7 L	107.3 L	106.2	0.52	3.4	1.1	108.5	1.25	6.6	2.4	16	LA
8FCB4K	106.4	103.7	104.9	106.3	105.3	0.24	9.7	1.3	103.4	-0.24	9.8	2.3	16	LC
8NGRJ8	107.3	103.5	105.0	102.0	104.5	-0.02	11.2	2.2	103.2	-0.29	10.6	2.9	16	AX
9DV6MB	104.4	104.7	99.9	106.1	103.8	-0.23	11.9	2.7	104.4	0.06	9.8	3.3	16	LA
9VKM9J	105.4	103.7	101.7	106.5	104.3	-0.06	12.5	2.1	102.6	-0.46	10.7	3.5	16	LJ
A8VECJ	113.4 *	114.2 *	118.6 X	115.0 *	115.3	3.31 X	8.7	2.3	115.0	3.12 X	7.4	2.2	16	LA
B4CJ9Q	100.1	104.0	102.1	99.6	101.5	-0.94	9.7	2.0	100.9	-0.97	10.0	2.2	16	AH
BBXDU2	103.0	100.2	104.0	98.9	101.5	-0.92	7.6	2.4	100.6	-1.05	7.5	2.4	16	AH
C24RUH	104.2	101.3	103.2	101.6	102.6	-0.60	8.4	1.4	102.3	-0.55	9.9	2.3	16	LC
CBKKYJ	103.5	104.3	99.8	104.0	102.9	-0.50	9.7	2.1	104.3	0.03	10.7	2.8	12	AA
CQJH6P	110.5	109.1	107.2	108.4	108.8	1.32	9.6	1.4	106.8	0.75	10.6	3.0	16	LA
CXXD44	101.6	100.2	104.2	102.4	102.1	-0.74	6.7	1.7	102.1	-0.61	6.1	3.5	16	RE
E6JYD2	99.5	100.5	100.1	104.6	101.2	-1.03	9.5	2.3	101.8	-0.69	10.1	3.2	16	TB
EBHMME	No Data	91.7 X	92.2 *	90.5 X	91.5	-4.00 X	6.3	0.9	101.2	-0.88	7.4	7.1 H	15	LC
EWYZDG	104.4	102.8	103.8	105.2	104.1	-0.14	8.1	1.0	103.7	-0.15	10.8	2.9	16	AH
G622QD	107.1	111.8	112.5	106.1	109.4	1.49	10.0	3.3	109.9	1.65	10.2	2.9	15	TB
GUXE9U	108.5	105.5	112.6	113.2	110.0	1.67	8.4	3.6	110.1	1.70	8.4	3.3	16	TB
HYJQL3	111.3	113.5 *	108.1	103.7	109.1	1.42	8.4	4.3	108.4	1.20	9.9	3.4	16	LC
K8ERKD	105.8	107.1	110.4	111.1	108.6	1.25	10.6	2.6	106.2	0.56	10.8	3.1	16	AH
LVZ8KG	97.0 *	104.4	99.5	100.8	100.4	-1.26	9.1	3.1	101.0	-0.93	9.6	3.5	16	LC
M4MRWT	105.6	109.7	104.8	107.0 H	106.8	0.69	12.2	2.2	113.4	2.68 *	11.0	6.4 H	16	AH
MBRAR9	106.5	101.1	110.9	98.1	104.2	-0.11	10.1	5.7 H	104.8	0.17	10.7	4.1	16	LJ
MXHTL4	110.4	106.8	107.2	109.3 L	108.4	1.20	4.8	1.7	108.3	1.17	4.8	1.6	13	XX
N2HEW7	101.9	104.7	103.9 H	100.1	102.7	-0.57	12.5	2.1	103.4	-0.24	10.8	2.0	16	LA
PALVYW	105.8	105.3	104.7	104.4	105.1	0.16	5.2	0.6	104.7	0.13	5.7	1.2	16	AH
PRRZM9	104.8	104.3	109.1	99.4	104.4	-0.04	7.9	4.0	102.3	-0.55	7.5	4.9	16	LC
Q8GPXV	105.2	104.7	105.4	103.7	104.8	0.07	6.5	0.8	104.3	0.03	5.8	1.4	16	TB
QUN7G6	101.9 L	101.8 L	102.3 L	102.5 L	102.1	-0.74	2.5	0.3 L	102.0	-0.65	3.8	1.6	16	LJ



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
RHB4V8	99.4	105.7 ^H	112.2 ^H	105.1 ^H	105.6	0.33	15.9	5.2	102.5	-0.51	14.3	4.4	16	XX
RZDYC6	106.4	105.2	105.9	107.6	106.3	0.54	11.0	1.0	105.2	0.29	9.7	1.9	16	AH
T42Q8K	99.5	100.6	107.1	99.9	101.7	-0.85	7.0	3.6	110.0	1.67	8.1	7.2 ^H	16	LA
THTPNA	105.8	102.8	105.6	105.5	104.9	0.12	12.3	1.4	103.7	-0.17	11.0	2.3	16	AH
UHNRT4	104.2	117.3 ^{XL}	110.9 ^L	109.7 ^L	110.5	1.84	5.6	5.4 ^H	108.1	1.13	7.4	4.4	16	LA
ULC3CG	106.5	108.1	104.4	110.1	107.3	0.85	6.4	2.4	106.5	0.67	6.6	2.2	16	AH
VGT72X	98.4	99.9	98.5	98.4	98.8	-1.76	10.0	0.7	99.9	-1.26	9.7	2.2	16	LA
WP6NGN	105.7	110.6	105.8	104.5	106.7	0.66	9.6	2.7	106.9	0.77	10.7	2.1	14	LZ
X6PVJ2	110.4	109.9	112.0 ^L	113.1	111.4	2.10 [*]	10.1	1.4	110.0	1.69	9.8	3.0	16	LA
XMRG3M	101.1	101.3	92.8 [*]	98.4	98.4	-1.88	9.5	4.0	96.9	-2.12 [*]	8.0	4.2	16	XX
YAGL64	103.7	103.2	104.0	107.0	104.5	-0.01	8.7	1.7	104.9	0.19	8.8	2.5	16	LC
YDJF9D	102.2	102.8	102.7	106.2	103.5	-0.32	9.3	1.8	100.4	-1.13	9.9	7.5 ^H	16	LA
ZNUCHV	102.5	99.7	104.2	104.8	102.8	-0.53	10.2	2.3	103.3	-0.27	9.4	1.7	16	LC
ZVEDZU	98.4	97.3	99.0	99.9	98.6	-1.80	7.4	1.1	97.2	-2.05 [*]	9.4	2.0	16	LA

Consensus (All Labs) Results

Wk Mean	104.59	104.52	104.41	104.64	Month Mean	104.52	Grand Mean	104.22
Avg SDr	9.16	9.34	9.52	9.46	Avg SDr	9.37	Avg SDr	9.39
SD btwn Labs	3.70	3.85	4.51	4.36	SD btwn Labs	3.26	SD btwn Labs	3.44
Labs Includ	48	47	48	48	SD btwn Wks	2.60	SD btwn Wks	3.67
Labs Exclud	0	2	1	1	Labs Includ	47	Labs Includ	48
Labs not rcvd	1	0	0	0				

Instrument Code List as Reported by the Labs

(AA) - Perkins Model A

(AX) - Perkins Mullen Tester (model not specified)

(LC) - L & W Autoline

(LZ) - L & W (model not specified)

(TB) - TMI Monitor/Burst 1000

(AH) - Perkins Model AH

(LA) - L & W Bursting Strength Tester

(LJ) - L & W Bursting Strength Tester J-Type

(RE) - Regmed/Mullen Tester

(XX) - Instrument make/model not specified by lab



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
2UFNWP	154.4	153.7	153.1	152.6	153.4	-1.03	12.7	0.8	148.7	-2.04*	12.8	11.1 H	12	TB
37QEHB	158.6	156.6	157.7	159.0	158.0	-0.18	9.9	1.0	157.4	-0.26	10.7	3.8	12	LZ
48WBAU	165.3 L	163.8	163.5	154.3	161.7	0.53	10.1	5.0	159.2	0.12	10.5	4.7	11	AA
4N2T7K	151.7	154.5	160.3	157.0	155.9	-0.57	13.8	3.7	155.9	-0.56	12.8	3.2	12	LC
6TB9DM	153.5	157.5	149.7	154.0	153.7	-0.99	11.9	3.2	156.4	-0.45	11.1	3.2	12	LA
77UA9K	158.7	161.5	159.1	159.2	159.6	0.14	13.0	1.2	159.5	0.18	12.3	4.2	12	LZ
77UDXP	152.6	155.9	160.3 H	159.3	157.0	-0.35	14.6	3.5	153.9	-0.98	12.8	3.9	12	LA
7M38RJ	173.5*	163.5	161.6	161.2	165.0	1.15	7.3	5.8	168.7	2.08*	9.0	5.4	12	LA
8FCB4K	157.6	161.1	155.2	157.2	157.8	-0.22	10.2	2.5	155.5	-0.64	13.6	4.3	12	LC
8NGRJ8	167.9	162.3	164.9	165.3	165.1	1.17	11.6	2.3	160.0	0.30	11.1	4.7	12	AX
9DV6MB	158.8	157.7	154.9	163.3	158.7	-0.04	12.0	3.5	158.0	-0.12	12.1	4.7	12	LA
9VKM9J	156.3	153.8	156.1	159.9	156.5	-0.45	9.6	2.5	158.1	-0.10	11.1	2.9	12	LJ
A8VE CJ	167.9	174.5*	166.4	171.0*	170.0	2.09*	9.7	3.6	165.2	1.38	7.4	7.1	12	LA
B4CJ9Q	154.5	158.4	158.7	158.4	157.5	-0.27	10.0	2.0	155.6	-0.63	11.0	3.9	12	AH
BBXDU2	160.7	163.5	156.8	154.4	158.8	-0.01	11.2	4.1	158.5	-0.01	10.0	3.6	12	AH
C24RUH	159.7	153.7	157.4	156.7	156.9	-0.38	10.9	2.5	154.7	-0.82	11.6	2.7	12	LC
CBKKYJ	156.3	160.0	155.3	158.3	157.4	-0.28	12.8	2.1	155.9	-0.55	12.0	3.3	12	AA
CQJH6P	161.5	158.6	161.5 H	159.5	160.3	0.26	12.5	1.5	160.5	0.40	12.8	2.5	12	LA
CXXD44	166.6	165.0	168.2	168.0	167.0	1.52	8.5	1.5	167.8	1.91	8.8	1.8	6	RE
E6JYD2	155.7	154.8	154.0	151.4	154.0	-0.93	11.3	1.9	153.4	-1.08	11.0	3.7	12	TB
EBHMME	No Data	148.7	148.5	155.6	151.0	-1.50	7.9	4.0	156.8	-0.37	11.6	4.9	11	LC
EWYZDG	150.4	151.4	150.4	152.0	151.1	-1.49	12.4	0.8	154.4	-0.87	11.4	4.0	12	AH
G622QD	170.7	172.4*	173.3*	170.8*	171.8	2.44*	13.0	1.3	167.3	1.81	12.1	4.5	12	TB
GUXE9U	172.2*	170.1	170.7*	169.7 L	170.7	2.23*	8.7	1.1	171.3	2.62*	11.5	2.9	12	TB
HYJQL3	166.3	160.2	166.0	166.3	164.7	1.10	11.6	3.0	163.5	1.02	12.4	3.9	12	LC
K8ERKD	158.7 H	162.1	158.3	162.0	160.3	0.26	13.7	2.1	158.5	-0.02	12.9	5.3	11	AH
LVZ8KG	159.0	163.8	157.6	158.7	159.8	0.16	11.4	2.8	157.2	-0.29	12.1	3.9	11	LC
M4MRWT	167.0	168.1	166.7	160.5	165.6	1.26	9.4	3.4	168.1	1.97	9.5	4.6	12	AH
MBRAR9	148.9	160.0	163.2	163.5	158.9	0.00	12.8	6.9 H	155.5	-0.65	12.9	5.1	12	LJ
MXHTL4	155.6	157.2 L	157.4 L	158.2 L	157.1	-0.34	4.7	1.1	155.9	-0.56	5.0	1.4	10	XX
N2HEW7	157.1	155.2	157.9	153.1	155.8	-0.58	11.5	2.1	154.5	-0.85	11.5	2.1	12	LA
PALVYW	159.2	160.9	153.8	155.5	157.4	-0.29	7.9	3.3	157.8	-0.16	8.3	2.1	12	AH
PRRZM9	154.1	159.2	162.6	150.6	156.6	-0.43	8.5	5.3	160.1	0.32	8.8	6.2	12	LC
Q8GPXV	158.4	162.8	154.2	160.6	159.0	0.02	7.6	3.7	159.0	0.07	8.6	4.0	12	TB
QUN7G6	159.5 L	156.9 L	159.0	159.6 L	158.7	-0.03	5.1	1.3	159.3	0.14	6.6	2.5	12	LJ

Containerboard Interlaboratory Testing Program
 Analysis 206
Bursting Strength (Mullen), 69 lb Linerboard - 69C1
 TAPPI Official Test Method T807



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
RHB4V8	161.9	162.5	156.4 ^H	164.8	161.4	0.47	14.4	3.6	162.1	0.73	14.1	2.6	12	XX
RZDYC6	170.9	168.4 ^H	161.8	159.6	165.2	1.19	13.6	5.3	163.5	1.02	12.8	3.5	12	AH
T42Q8K	157.4	149.3	148.6	156.2	152.9	-1.14	8.5	4.6	161.5	0.60	8.7	10.9 ^H	12	LA
THTPNA	154.3	162.5	154.9	160.0	157.9	-0.19	10.1	4.0	158.8	0.05	11.2	3.1	12	AH
UHNRT4	156.6	165.3 ^L	164.1	162.9 ^L	162.2	0.63	5.2	3.9	158.8	0.05	9.3	4.4	12	LA
ULC3CG	157.1	164.0	168.6	159.8	162.3	0.65	9.2	5.0	157.9	-0.14	7.9	4.6	12	AH
VGT72X	154.0	157.0	151.5	150.8	153.3	-1.06	12.4	2.8	154.2	-0.90	13.2	5.0	12	LA
WP6NGN	154.2	158.7	159.4	158.1	157.6	-0.25	12.2	2.3	158.9	0.06	13.6	3.7	11	LZ
X6PVJ2	167.8	159.4	162.2	167.4	164.2	1.00	12.7	4.1	163.5	1.02	10.7	6.3	12	LA
XMRG3M	146.2	149.4	155.1	152.4	150.7	-1.55	12.6	3.9	150.1	-1.75	12.5	3.2	12	XX
YAGL64	157.4	157.3 ^L	157.7	156.7	157.3	-0.31	7.9	0.4 ^L	157.5	-0.23	9.8	5.5	12	LC
YDJF9D	155.4	160.2	157.2	156.5	157.3	-0.30	12.1	2.1	155.8	-0.57	12.2	3.0	12	LA
ZNUCHV	161.0	154.0	153.2	156.0	156.1	-0.54	12.5	3.5	157.4	-0.24	13.0	5.3	8	LC
ZVEDZU	143.7*	144.1*	149.5	144.3*	145.4	-2.55*	10.6	2.7	148.7	-2.04*	11.0	3.1	12	LA

Consensus (All Labs) Results

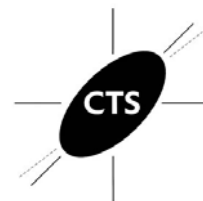
Wk Mean	158.89	159.42	158.66	158.82	Month Mean	158.91	Grand Mean	158.59
Avg SDr	11.30	11.05	10.52	10.98	Avg SDr	10.95	Avg SDr	11.19
SD btwn Labs	6.59	6.02	5.78	5.53	SD btwn Labs	5.29	SD btwn Labs	4.83
Labs Includ	48	49	49	49	SD btwn Wks	3.28	SD btwn Wks	4.59
Labs Exclud	0	0	0	0	Labs Includ	49	Labs Includ	49
Labs not rcvd	1	0	0	0				

Instrument Code List as Reported by the Labs

- (AA) - Perkins Model A
- (AH) - Perkins Model AH
- (AX) - Perkins Mullen Tester (model not specified)
- (LA) - L & W Bursting Strength Tester
- (LC) - L & W Autoline
- (LJ) - L & W Bursting Strength Tester J-Type
- (LZ) - L & W (model not specified)
- (RE) - Regmed/Mullen Tester
- (TB) - TMI Monitor/Burst 1000
- (XX) - Instrument make/model not specified by lab



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
2UFNWP	105.9	103.5	104.3	108.1	105.5	1.10	3.9	2.0	97.8	-0.50	6.8	12.1 H	14	LC
37QEHB	90.1 *L	86.0 *	83.4 X	91.2 *	87.7	-2.63 *	3.0	3.6	94.9	-1.15	3.8	5.0	16	LC
3UAUQN	91.9	94.4	91.4	94.2	93.0	-1.52	3.4	1.5	93.1	-1.56	3.4	1.2	16	EX
48WBAU	97.2	99.0	93.5	97.4	96.8	-0.72	3.9	2.3	96.5	-0.80	3.1	1.8	15	LD
4KLXPM	102.7	101.7	No Data	No Data	102.2	0.41	4.3	0.7	99.2	-0.19	4.6	3.0	5	EX
792FZM	103.7	103.0	No Data	102.9	103.2	0.63	4.4	0.4 L	102.4	0.50	4.5	2.5	13	MB
7M38RJ	102.2	100.1	100.8 L	100.4 L	100.8	0.13	2.3	0.9	101.2	0.25	2.4	0.5 L	16	LZ
8FCB4K	104.3	105.4	106.4	108.3	106.1	1.23	3.4	1.7	105.3	1.15	4.2	2.2	16	TC
8NGRJ8	94.5 H	99.3	105.6	97.3	99.2	-0.21	5.4	4.7	100.4	0.07	5.2	3.7	16	LX
9DV6MB	99.5	107.2	101.9	102.4	102.8	0.53	3.7	3.2	98.0	-0.47	3.9	6.7	16	LC
9VKM9J	99.4 H	101.9	103.0	100.3	101.2	0.20	5.3	1.6	100.9	0.18	5.0	1.9	15	LD
A8VECJ	104.7	106.9	110.0	109.7 *	107.8	1.60	4.6	2.5	108.9	1.97	3.0	1.8	15	LD
B4CJ9Q	102.3	101.1	104.3	101.9	102.4	0.46	3.1	1.4	99.3	-0.19	3.6	2.7	16	LD
BBXDU2	100.1	99.9	99.5	99.8	99.8	-0.08	2.1	0.3 L	99.6	-0.11	2.5	1.3	16	EM
BXJRRG	103.4	102.2	102.1	103.5	102.8	0.54	3.5	0.8	100.1	0.00	3.8	2.6	16	LC
C24RUH	105.9	103.1	96.0	106.4	102.8	0.55	4.1	4.8	98.6	-0.33	4.1	5.6	16	LD
CXXD44	102.3	102.3	102.6	103.6	102.7	0.52	4.0	0.6	102.8	0.59	3.4	2.2	16	LZ
D7WBHX	97.8	97.8	100.8	102.3 H	99.7	-0.11	5.2	2.2	68.7	-6.99 X	4.5	21.4 H	14	MB
E6JYD2	100.8	105.2	87.9 *	99.2	98.3	-0.41	3.9	7.4 H	99.3	-0.17	4.3	4.5	16	LZ
EBHMME	No Data	97.4	95.2	98.8	97.1	-0.65	3.0	1.8	97.1	-0.66	3.4	5.0	15	LC
EK3WAM	95.1	93.6	96.1	98.2	95.7	-0.94	3.6	1.9	96.9	-0.71	3.4	2.4	16	EN
ERM2XG	93.3	91.9	92.6	91.3	92.3	-1.67	3.3	0.9	93.8	-1.39	3.2	1.8	16	TD
EWYZDG	111.0 *	108.7	106.7	105.7	108.0	1.64	3.8	2.4	108.1	1.79	5.8	2.6	16	LC
G622QD	103.8	101.8	100.2	92.4	99.5	-0.14	3.9	5.0	97.4	-0.61	4.0	4.1	15	LC
GPCWJJ	100.3	101.2	98.0	102.5	100.5	0.06	2.6	1.9	100.2	0.02	3.0	1.6	16	LD
GUXE9U	111.2 *	112.6 *	116.2 X	120.3 X	115.1	3.12 X	3.5	4.1	110.3	2.28 *	4.1	5.8	16	LX
JMWFVW	100.9 H	106.5	100.5	101.8 H	102.4	0.46	6.5	2.8	105.2	1.14	5.9	8.9 H	16	XX
K4YG8A	92.1	90.8	94.6	93.0	92.6	-1.60	3.5	1.6	92.5	-1.69	3.2	3.5	16	EM
K8ERKD	100.3	96.5	101.1	97.3	98.8	-0.30	4.2	2.2	99.8	-0.07	4.0	1.3	16	LC
LVZ8KG	111.5 *	105.1	109.7	100.9 H	106.8	1.39	6.5	4.8	109.6	2.11 *	5.7	3.6	16	LC
M4MRWT	106.4 H	107.0	104.0	104.2	105.4	1.09	5.3	1.5	106.8	1.50	5.5	2.9	16	LZ
MBRAR9	92.6	92.1	92.7	85.3 X	90.7	-2.01 *	3.4	3.6	91.6	-1.88	4.1	2.2	16	LC
MXHTL4	98.0	103.7	99.8	100.9	100.6	0.08	5.0	2.4	100.8	0.16	4.6	3.7	13	XX
N2HEW7	101.8	98.9	102.3	102.9	101.5	0.26	3.6	1.8	101.0	0.20	3.8	2.0	16	LD
Q8GPXV	100.3	98.3	100.3	98.3	99.3	-0.19	3.4	1.2	99.3	-0.19	3.1	0.8 L	16	TH



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
QLJY26	91.8	92.1	91.6	94.7	92.6	-1.61	4.4	1.5	91.9	-1.84	3.6	7.3	12	MB
QUN7G6	101.0	101.7	101.3	99.3	100.8	0.12	4.3	1.1	102.7	0.59	3.4	2.5	16	LD
T42Q8K	99.5	100.6	102.2 L	97.6	100.0	-0.05	3.3	1.9	101.2	0.24	2.9	1.6	16	LD
UHNRT4	103.2	100.5 L	102.4	99.1 L	101.3	0.23	2.0	1.9	99.1	-0.22	2.8	2.0	16	LD
ULC3CG	100.3	98.8	103.3	102.1	101.1	0.19	4.8	2.0	100.8	0.15	4.3	2.1	16	LC
V4JZFX	96.6	92.6	91.8	93.5	93.6	-1.39	3.8	2.1	98.1	-0.44	3.4	6.4	16	EM
VGT72X	99.8	99.2	100.1	102.7	100.4	0.05	3.3	1.5	100.2	0.01	4.0	1.4	14	LC
WHEG7W	102.9	94.8	101.1	105.6	101.1	0.19	4.6	4.6	101.1	0.22	3.8	3.0	16	EM
WM9DT2	94.1	92.5	93.7	94.0	93.6	-1.40	3.2	0.7	96.0	-0.91	3.1	1.7	16	TH
WP6NGN	101.0	102.5	102.9	103.6	102.5	0.48	3.6	1.1	101.8	0.37	3.0	2.4	14	LC
WUE677	106.2	104.0	106.2	102.6	104.8	0.95	3.3	1.7	105.2	1.13	3.1	2.2	16	LD
X6PVJ2	102.8	97.1	103.2	101.7	101.2	0.21	3.9	2.8	100.1	-0.01	3.9	3.2	16	LZ
XBF6TZ	94.2	96.9	96.4	94.2	95.4	-1.01	4.0	1.5	95.7	-0.98	3.7	1.6	12	XX
XMRG3M	106.5	113.4 *	104.6	105.2	107.4	1.52	5.2	4.1	106.6	1.45	4.9	2.9	16	LZ
YAGL64	104.2	106.7	105.6	107.3	106.0	1.20	3.6	1.4	106.0	1.32	4.1	1.8	16	LC
YDJF9D	103.4	99.4 H	133.6 XH	99.6	109.0	1.85	6.6	16.5 H	99.9	-0.03	6.2	11.0 H	16	LC
ZNUCHV	95.4	99.1 H	97.9 H	101.0 H	98.4	-0.39	7.7	2.4	94.3	-1.30	8.0	18.8 H	16	LA
ZVEDZU	94.8	99.0	93.6	97.1	96.1	-0.86	3.8	2.4	95.6	-1.01	4.1	2.4	16	LC

Consensus (All Labs) Results

Wk Mean	100.48	100.32	100.03	100.36	Month Mean	100.21	Grand Mean	100.10
Avg SDr	4.15	4.15	3.89	4.54	Avg SDr	4.21	Avg SDr	4.20
SD btwn Labs	5.08	5.47	5.11	4.53	SD btwn Labs	4.76	SD btwn Labs	4.49
Labs Includ	52	53	48	50	SD btwn Wks	3.45	SD btwn Wks	4.82
Labs Exclud	0	0	3	2	Labs Includ	52	Labs Includ	52
Labs not rcvd	1	0	2	1				

Instrument Code List as Reported by the Labs

- (EM) - Emerson 1200
- (EX) - Emerson (model not specified)
- (LC) - L & W Crush Tester 48
- (LX) - L & W 506
- (MB) - Messmer Buchel K440
- (TD) - TMI Digital Crush Tester, Model 17-09
- (XX) - Instrument make/model not specified by lab
- (EN) - Emerson 2200
- (LA) - L&W Autoline
- (LD) - L&W Crush Tester 248
- (LZ) - L & W Crush Tester (model not specified)
- (TC) - TMI Monitor/Compression Tester, Model 17-37
- (TH) - TMI Compression Tester, Model 17-76



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
2UFNWP	137.6	141.2L	143.4	144.3	141.6	0.99	3.1	3.0	133.4	0.10	8.0	16.6H	12	LC
37QEHB	120.9	111.4X	112.5*	122.8	116.9	-1.99	3.2	5.8	125.3	-0.96	3.8	7.0	12	LC
3UAUQN	126.8	126.7	124.5	126.9	126.2	-0.87	3.6	1.2	126.7	-0.78	3.3	1.6	12	EX
48WBAU	121.1	119.7	115.0*	115.7*	117.9	-1.87	2.4	3.0	117.4	-1.98	2.5	1.9	11	LD
4KLXPM	148.9*	148.1	No Data	No Data	148.5	1.81	4.5	0.6L	147.6	1.92	4.3	1.4	4	EX
792FZM	137.4	127.4	No Data	136.6	133.8	0.05	3.7	5.6	132.9	0.03	3.3	5.5	9	MB
7M38RJ	133.8L	133.9	132.3	132.8	133.2	-0.02	2.4	0.8L	133.9	0.16	2.3	0.8L	12	LZ
8FCB4K	145.4	136.0	138.5	136.3	139.0	0.68	3.3	4.4	139.3	0.85	3.9	4.5	12	TC
8NGRJ8	136.2	135.7	138.2	131.7	135.5	0.25	3.5	2.7	132.3	-0.05	5.1	6.1	12	LX
9DV6MB	128.0L	129.4	125.6	123.9	126.7	-0.80	2.8	2.5	123.8	-1.14	4.2	4.7	12	LC
9VKM9J	133.1	134.2	131.3	135.2	133.5	0.01	4.8	1.6	133.3	0.08	4.7	1.3	11	LD
A8VECJ	142.4	139.0	143.4	144.6	142.4	1.08	4.2	2.4	142.8	1.30	3.5	3.4	12	LD
B4CJ9Q	132.9	133.3	135.4	134.7L	134.1	0.08	3.1	1.2	133.2	0.07	3.6	1.6	12	LD
BBXDU2	122.6	123.2	125.9	124.4	124.0	-1.13	2.6	1.4	124.6	-1.05	2.6	4.2	12	EM
BXJRRG	133.6	133.6	133.2	133.3	133.4	0.00	2.8	0.2L	132.3	-0.05	3.3	2.0	12	LC
C24RUH	141.6	139.5	135.5	129.9	136.6	0.39	3.5	5.1	133.6	0.12	4.1	5.7	12	LD
CXXD44	133.7	133.0	131.9	132.4	132.7	-0.08	3.9	0.8L	134.7	0.27	3.8	2.3	8	LZ
D7WBHX	120.6H	135.9	139.1	135.8	132.9	-0.07	5.3	8.3	101.9	-3.98X	6.7	23.5H	12	MB
E6JYD2	137.4	136.8	131.7	135.3	135.3	0.23	3.4	2.6	135.0	0.30	4.9	5.9	12	LZ
EBHMME	No Data	121.6	121.0	120.7	121.1	-1.48	3.6	0.5L	124.9	-1.01	2.9	3.3	11	LC
EK3WAM	128.7	125.2	128.1	128.1	127.5	-0.71	3.5	1.6	127.0	-0.73	3.3	3.4	12	EN
ERM2XG	146.6	146.1	148.5	148.6	147.4	1.69	3.2	1.3	146.5	1.79	2.4	1.4	12	TD
EWYZDG	135.9	135.6	126.3	134.9H	133.2	-0.03	4.9	4.6	129.6	-0.40	5.0	3.7	12	LC
G622QD	142.6	130.0	138.9	124.2	133.9	0.06	4.3	8.3	135.6	0.38	4.4	4.8	12	LC
GPCWJJ	123.7L	127.2	128.8	99.4XL	119.8	-1.64	1.8	13.7H	126.0	-0.86	3.0	9.2H	12	LD
GUXE9U	151.0*L	152.2*	154.3*	154.8*	153.1	2.37*	2.8	1.8	149.6	2.19*	3.4	3.0	12	LX
K4YG8A	129.6	122.7	123.1	127.2	125.6	-0.93	3.0	3.3	123.7	-1.16	6.7	3.9	12	EM
K8ERKD	132.8	132.8	135.0	132.6	133.3	-0.01	3.8	1.1	132.6	-0.01	4.0	1.3	12	LC
LVZ8KG	155.7X	148.6H	151.5*H	151.4*	151.8	2.22*	6.2	2.9	151.3	2.41*	5.5	5.0	10	LC
M4MRWT	131.3H	138.9	139.1	136.8	136.5	0.38	5.9	3.6	141.9	1.18	4.7	5.5	12	LZ
MBRAR9	128.2	128.5	128.6	127.9	128.3	-0.62	3.7	0.3L	125.9	-0.88	3.5	4.0	12	LC
MXHTL4	133.9	130.5	135.5	135.1	133.8	0.04	3.6	2.3	136.5	0.49	3.7	3.9	10	XX
N2HEW7	136.7	138.1	140.6	138.9	138.6	0.62	3.0	1.6	130.6	-0.27	3.1	6.1	12	LD
Q8GPXV	133.3	132.4	131.9	133.8	132.8	-0.07	3.3	0.8	132.2	-0.06	2.9	0.8L	12	TH
QLJY26	124.8H	123.2H	123.1H	121.3H	123.1	-1.24	8.0	1.4	115.9	-2.17*	6.2	7.8	8	MB



WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
QUN7G6	138.2	138.5	137.3	136.4	137.6	0.51	3.0	0.9	137.6	0.64	3.1	2.8	12	LD
T42Q8K	138.5 L	139.3	137.9	137.7	138.4	0.60	3.0	0.7 L	138.1	0.70	3.0	1.2	12	LD
UHNRT4	126.9	127.9 L	126.6	102.5 X	121.0	-1.49	2.4	12.3 H	126.4	-0.81	3.2	8.0 H	12	LD
ULC3CG	132.7	132.7	137.4	141.9 L	136.2	0.34	3.5	4.4	138.3	0.73	3.0	3.3	12	LC
V4JZFX	135.6	134.3	134.0	134.9	134.7	0.15	4.2	0.7 L	128.3	-0.57	4.3	5.0	12	EM
VGT72X	135.1	134.0	134.1	125.5	132.2	-0.15	3.6	4.5	130.4	-0.29	4.1	3.3	11	LC
WHEG7W	140.4	139.9	141.1	143.7	141.3	0.95	3.7	1.7	139.7	0.91	3.8	2.8	8	EM
WM9DT2	131.6	131.2	131.2	131.6	131.4	-0.24	3.1	0.2 L	130.1	-0.34	2.4	1.0	12	TH
WP6NGN	124.7	126.5	130.2	126.2	126.9	-0.78	3.0	2.4	128.5	-0.54	2.6	3.6	11	LC
WUE677	126.9	129.7	129.2	128.7	128.6	-0.58	3.5	1.2	128.2	-0.58	3.3	1.2	12	LD
X6PVJ2	133.3	132.2	131.8	124.9	130.6	-0.34	5.3	3.8	129.5	-0.41	4.6	3.9	12	LZ
XBF6TZ	128.7	127.0	127.6	124.6 H	127.0	-0.77	4.6	1.7	124.4	-1.06	3.8	3.0	8	XX
XMRG3M	137.7	146.9	140.4	139.8	141.2	0.94	3.9	4.0	139.7	0.91	4.0	4.6	12	LZ
YAGL64	144.0	144.3	141.2	144.8	143.6	1.23	4.3	1.6	143.6	1.41	4.4	2.1	12	LC
YDJF9D	139.8	142.6	172.6 XH	135.1	147.5	1.70	4.8	17.0 H	139.8	0.92	4.4	10.9 H	12	LC
ZNUCHV	127.8 H	123.4	120.7	118.5 H	122.6	-1.30	5.9	4.0	122.4	-1.32	5.6	3.0	8	LA
ZVEDZU	131.4	132.5	133.9	131.3	132.3	-0.14	3.5	1.2	129.9	-0.37	3.8	2.8	12	LC

Consensus (All Labs) Results

Wk Mean	133.72	133.78	133.19	133.03	Month Mean	133.40	Grand Mean	132.69
Avg SDr	4.22	3.91	3.65	3.82	Avg SDr	3.92	Avg SDr	4.07
SD btwn Labs	7.24	7.49	8.38	8.38	SD btwn Labs	8.30	SD btwn Labs	7.74
Labs Includ	50	51	49	49	SD btwn Wks	4.62	SD btwn Wks	4.92
Labs Exclud	1	1	1	2	Labs Includ	52	Labs Includ	51
Labs not rcvd	1	0	2	1				

Instrument Code List as Reported by the Labs

- (EM) - Emerson 1200
- (EN) - Emerson 2200
- (EX) - Emerson (model not specified)
- (LA) - L&W Autoline
- (LC) - L & W Crush Tester 48
- (LD) - L&W Crush Tester 248
- (LX) - L & W 506
- (LZ) - L & W Crush Tester (model not specified)
- (MB) - Messmer Buchel K440
- (TC) - TMI Monitor/Compression Tester, Model 17-37
- (TD) - TMI Digital Crush Tester, Model 17-09
- (TH) - TMI Compression Tester, Model 17-76
- (XX) - Instrument make/model not specified by lab



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
37QEHB	22.5	20.8*	21.2*	23.0	21.9	-2.45*	1.7	1.1	24.4	-0.33	2.0	1.6 H	16	LW
48WBAU	22.9	22.7	21.9	23.0	22.6	-1.78	1.9	0.5	22.8	-1.70	1.9	0.6	15	LW
4KLXPM	24.6 L	23.9 L	No Data	No Data	24.3	-0.29	0.0	0.5	24.3	-0.40	0.0	0.5	5	LZ
4N2T7K	26.2	27.8*	25.8	26.4	26.6	1.72	2.3	0.8	26.3	1.41	2.1	1.3	16	LA
6TB9DM	23.3	23.6	23.1	23.5	23.4	-1.12	2.2	0.2	22.8	-1.74	2.0	0.9	16	LU
77UA9K	27.2	23.7	25.3	25.4	25.4	0.67	2.9	1.4	26.0	1.15	2.4	1.2	16	LZ
77UDXP	25.2	25.1	24.9	26.4	25.4	0.69	2.3	0.7	26.2	1.28	2.5	0.8	16	LW
792FZM	25.5 L	25.4 L	No Data	24.4 L	25.1	0.42	0.1	0.6	25.3	0.50	0.1	0.8	13	LA
8FCB4K	23.9 L	27.8* L	25.4 L	25.1 L	25.6	0.83	0.3	1.6 H	26.3	1.44	0.4	1.4	16	LA
8NGRJ8	23.8	23.9	22.6	23.2	23.4	-1.11	1.9	0.6	23.0	-1.57	1.9	1.0	16	XX
9DV6MB	24.2	24.2	23.5	23.7	23.9	-0.64	2.0	0.4	24.2	-0.52	2.2	0.8	16	XX
9VKM9J	23.7	23.9	24.5	24.9	24.3	-0.33	1.9	0.6	24.6	-0.14	2.0	0.7	15	LU
B4CJ9Q	24.7	24.8	24.4	24.2	24.5	-0.08	1.8	0.3	24.5	-0.24	1.9	0.4	16	LU
BXJRRG	24.7	24.5	24.4	24.3	24.5	-0.14	1.8	0.2	23.8	-0.81	1.7	0.8	16	LU
C24RUH	25.3 L	25.2 L	26.0 L	22.8 L	24.8	0.18	0.5	1.4	25.0	0.26	0.5	1.0	16	LA
D7WBHX	26.8 L	26.6 L	26.4 L	26.9* L	26.7	1.84	0.6	0.2	26.6	1.66	0.7	0.6	16	BK
E6JYD2	24.2	24.0	24.1	24.7	24.2	-0.34	2.0	0.3	24.3	-0.42	2.1	0.9	16	LZ
EBHMME	No Data	23.0 L	23.4 L	23.5 L	23.3	-1.18	0.4	0.3	23.9	-0.74	0.5	1.2	15	LA
EK3WAM	23.8	22.3	23.6	23.4	23.3	-1.22	2.1	0.7	23.0	-1.60	1.9	0.7	16	LU
EWYZDG	25.0	26.1	25.9	24.8	25.5	0.75	1.1	0.6	26.5	1.56	1.2	1.1	16	LY
G622QD	25.8	26.1	26.5	25.6	26.0	1.23	2.2	0.4	25.3	0.46	2.0	0.8	15	LW
HYJQL3	27.6*	28.4*	28.8*	28.2 X	28.2	3.21 X	2.1	0.5	27.6	2.56*	2.4	1.0	16	LA
JABYC6	26.2 L	26.7 L	26.8 L	25.6 L	26.3	1.52	0.0	0.5	25.0	0.24	0.0	1.0	16	LU
JMWFVW	26.9 L	26.7 L	26.8 L	26.2 L	26.7	1.81	0.1	0.3	29.3	4.04 X	0.2	6.9 H	16	XX
K8ERKD	24.6	25.2	24.6	24.3	24.7	0.05	2.1	0.4	24.9	0.14	2.0	0.4	16	LU
KRAA3R	21.6* L	23.1 L	22.8 L	22.7 L	22.5	-1.87	0.5	0.6	22.8	-1.69	0.6	1.0	16	LW
LVZ8KG	25.3 L	25.4 L	24.9 L	24.0 L	24.9	0.24	0.5	0.6	25.4	0.61	0.8	0.9	16	LA
PALVYW	24.9	24.3	24.1	24.5	24.5	-0.15	1.1	0.3	24.5	-0.25	1.1	0.2	16	TT
PRRZM9	25.0 L	24.1 L	23.0 L	25.0 L	24.3	-0.28	0.4	1.0	24.2	-0.50	0.4	0.9	16	LA
Q8GPXV	24.3	24.8	24.4	24.0	24.4	-0.22	1.2	0.4	24.3	-0.35	1.2	0.3	16	TT
RZDYC6	25.6	24.2	23.6	23.3	24.2	-0.40	1.7	1.0	24.1	-0.53	2.2	0.7	16	LW
T2LF3N	25.3	24.4	25.1	25.0	25.0	0.31	2.1	0.4	24.6	-0.09	2.0	0.6	16	LY
T42Q8K	24.2	23.7	23.0	25.1	24.0	-0.53	1.5	0.9	23.8	-0.86	1.4	0.7	16	BK
THTPNA	24.8	26.0	26.1	24.8	25.4	0.72	2.2	0.7	26.2	1.28	2.3	0.8	16	LU
ULC3CG	25.2	25.2	25.4	24.8	25.2	0.48	1.3	0.2	25.0	0.23	1.3	0.2	16	LW



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
VGT72X	24.9	24.5	24.8	25.4	24.9	0.25	1.7	0.3	24.5	-0.17	1.9	0.5	16	LW
WP6NGN	24.6	24.0	25.0	25.8	24.8	0.20	2.0	0.8	24.8	0.07	2.0	0.8	14	LW
X6PVJ2	23.8	23.1	23.6	23.3	23.5	-1.02	2.1	0.3	24.4	-0.34	2.3	0.8	16	LW
XBF6TZ	23.9	23.6	22.4	23.7	23.4	-1.09	1.9	0.7	23.7	-0.94	2.0	0.7	12	XX
YAGL64	27.1 L	24.3 L	27.2 L	26.0 L	26.2	1.37	0.0	1.3	25.9	1.07	0.0	1.3	16	LA
YDJF9D	25.4 L	25.3 L	25.5	26.1	25.6	0.83	0.8	0.3	25.0	0.22	0.8	1.3	16	LW
ZNUCHV	25.5 L	23.7 L	24.6 L	24.4 L	24.5	-0.07	0.5	0.7	24.8	0.08	0.5	0.9	16	LA
ZVEDZU	25.6	24.4	24.9	24.5	24.8	0.20	1.9	0.5	24.4	-0.27	2.1	1.2	16	LY

Consensus (All Labs) Results

Wk Mean	24.89	24.67	24.64	24.57	Month Mean	24.62	Grand Mean	24.74
Avg SDr	1.73	1.65	1.57	1.66	Avg SDr	1.64	Avg SDr	1.69
SD btwn Labs	1.25	1.50	1.55	1.10	SD btwn Labs	1.12	SD btwn Labs	1.12
Labs Includ	42	43	41	41	SD btwn Wks	0.70	SD btwn Wks	0.89
Labs Exclud	0	0	0	1	Labs Includ	42	Labs Includ	42
Labs not rcvd	1	0	2	1				

Instrument Code List as Reported by the Labs

(BK) - Buchel Strip Compression Tester BK-155

(LU) - L & W 52 without moisture correction(was 53)

(LY) - L & W 152 without moisture correction

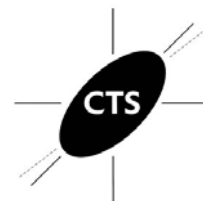
(TT) - TMI Short Span Compression, 17-34 (MB K455)

(LA) - L & W Autoline

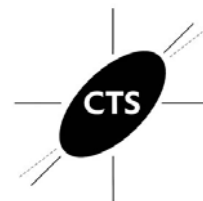
(LW) - L & W 53 with moisture correction (was 53M)

(LZ) - L & W (model not specified)

(XX) - Instrument make/model not specified by lab



WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
37QEHB	28.9*	25.9*	26.0X	28.4	27.3	-2.43*	1.4	1.6	31.3	-0.63	2.0	3.1	12	LW
48WBAU	32.0	30.9	30.9	30.2	31.0	-0.67	1.7	0.7	31.0	-0.78	1.7	0.7	11	LW
4KLXPM	33.2L	35.4L	No Data	No Data	34.3	0.92	0.0	1.6	34.9	1.09	0.0	1.2	4	LZ
4N2T7K	35.6L	35.9	33.7	35.8	35.2	1.36	1.4	1.0	35.2	1.23	1.6	0.9	12	LA
6TB9DM	31.3	29.8	31.1	30.2	30.6	-0.86	1.4	0.7	29.7	-1.41	1.7	0.8	12	LU
77UA9K	35.6	34.6	33.3	32.2	33.9	0.72	1.9	1.5	34.4	0.85	1.9	1.2	12	LZ
77UDXP	32.6	33.0	32.8	33.3	32.9	0.27	1.8	0.3	32.9	0.16	1.9	0.2L	11	LW
792FZM	34.7L	34.9L	No Data	34.6L	34.7	1.13	0.1	0.2	34.1	0.70	0.1	1.0	9	LA
8FCB4K	32.8L	36.6L	36.0L	35.1L	35.1	1.32	0.3	1.7	34.3	0.79	0.4	1.2	12	LA
8NGRJ8	26.4X	27.1*	29.7	29.1	28.1	-2.06*	1.3	1.6	28.3	-2.07*	1.6	1.0	12	XX
9DV6MB	33.5	31.9	31.2	32.3	32.2	-0.08	1.4	1.0	31.1	-0.71	1.5	1.3	12	XX
9VKM9J	33.4	33.5	33.1	33.7	33.4	0.50	1.6	0.3	33.6	0.48	1.6	0.5	11	LU
B4CJ9Q	31.2	31.7	32.0	31.2	31.5	-0.41	1.7	0.4	31.4	-0.59	1.8	0.5	12	LU
BXJRRG	30.3	30.0	30.2	31.4L	30.5	-0.92	1.3	0.6	29.7	-1.38	1.3	0.8	12	LU
C24RUH	32.6L	31.6L	32.3L	29.5L	31.5	-0.42	0.5	1.4	32.1	-0.26	0.4	1.3	12	LA
D7WBHX	35.8	34.7	35.2L	35.5	35.3	1.39	0.8	0.4	36.7	1.96	0.8	8.0H	12	BK
E6JYD2	30.5	30.5	30.2	30.9	30.5	-0.90	1.6	0.3	30.6	-0.97	1.5	0.4	12	LZ
EBHMME	31.6	27.2*L	29.1L	28.8	29.2	-1.53	1.0	1.8	30.3	-1.09	0.7	1.5	12	LA
EK3WAM	32.2	32.6	32.7	33.3	32.7	0.15	2.0	0.4	32.3	-0.14	2.6	0.6	12	LU
EWYZDG	35.5	36.1	36.1	35.9	35.9	1.68	1.3	0.3	36.5	1.83	1.3	1.0	12	LY
G622QD	32.2	32.8	32.8	32.3	32.5	0.07	1.9	0.3	32.4	-0.12	1.7	0.5	12	LW
HYJQL3	37.1*	37.5*	37.0*	37.0*	37.1	2.28*	1.9	0.2	36.0	1.63	1.9	1.4	12	LA
JABYC6	32.4L	32.9L	31.9L	32.5L	32.4	0.02	0.0	0.4	31.7	-0.45	0.0	1.0	12	LU
JMWFVW	35.3L	33.9L	35.4L	35.7L	35.1	1.28	0.1	0.8	38.3	2.68*	0.2	8.8H	8	XX
K8ERKD	31.2	31.5	31.1	31.6	31.3	-0.50	1.3	0.2	31.5	-0.53	1.3	0.4L	12	LU
KRAA3R	31.4	32.0	31.5	31.1	31.5	-0.43	1.4	0.4	32.3	-0.15	1.6	1.0	12	LW
LVZ8KG	32.6L	33.2	31.8L	32.9L	32.6	0.12	0.6	0.6	33.0	0.19	1.2	1.3	12	LA
PALVYW	32.7	32.7	32.1	32.7	32.5	0.08	1.3	0.3	32.0	-0.28	1.3	0.6	12	TT
PRRZM9	31.6L	32.8	30.2L	29.6L	31.0	-0.65	0.5	1.5	31.5	-0.51	0.5	1.1	12	LA
Q8GPXV	32.7	33.2	31.9	31.0	32.2	-0.09	1.5	1.0	31.9	-0.34	1.4	0.6	12	TT
RZDYC6	31.8	31.6	31.4	30.8	31.4	-0.47	1.6	0.5	31.1	-0.72	1.9	0.9	12	LW
T2LF3N	31.5	31.7	32.1	32.6	32.0	-0.18	1.6	0.5	32.4	-0.10	1.3	0.9	12	LY
T42Q8K	30.9	31.5	30.9	31.5	31.2	-0.57	1.2	0.4	31.4	-0.58	1.2	0.4	12	BK
THTPNA	32.8	34.7	35.8	34.1	34.3	0.93	1.6	1.2	33.9	0.61	1.6	1.2	12	LU
ULC3CG	32.0	32.1	32.8	33.3	32.5	0.08	1.4	0.6	33.3	0.31	1.6	0.7	12	LW



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
VGT72X	No Data	31.7	31.4	32.1	31.7	-0.31	1.4	0.4	31.5	-0.51	1.4	0.6	11	LW
WP6NGN	31.3	31.1	32.2	31.0	31.4	-0.48	1.5	0.5	31.5	-0.52	1.5	0.5	11	LW
X6PVJ2	30.2	31.3	31.1	32.1	31.1	-0.59	1.7	0.8	32.5	-0.08	1.8	1.2	11	LW
XBF6TZ	31.1	31.1	31.1	31.0	31.1	-0.64	2.4	0.1 L	31.5	-0.51	2.0	0.7	8	XX
YAGL64	35.9 L	33.0 L	35.6 L	33.7 L	34.5	1.04	0.0	1.4	34.7	0.97	0.0	0.9	12	LA
YDJF9D	35.3	36.5	35.3	34.8	35.5	1.47	1.9	0.7	35.9	1.56	2.5	1.1	12	LW
ZNUCHV	32.7	30.3 L	29.1	29.0 L	30.2	-1.03	0.6	1.7	30.4	-1.04	0.5	1.2	8	LA
ZVEDZU	31.3	30.5	31.6	31.2	31.2	-0.59	1.2	0.5	31.4	-0.57	1.7	1.3	12	LY

Consensus (All Labs) Results									
Wk Mean	32.65	32.41	32.38	32.25	Month Mean	32.38	Grand Mean	32.62	
Avg SDr	1.47	1.45	1.37	1.38	Avg SDr	1.41	Avg SDr	1.50	
SD btwn Labs	1.85	2.48	2.02	2.13	SD btwn Labs	2.08	SD btwn Labs	2.11	
Labs Includ	41	43	40	42	SD btwn Wks	0.91	SD btwn Wks	2.08	
Labs Exclud	1	0	1	0	Labs Includ	43	Labs Includ	43	
Labs not rcvd	1	0	2	1					

Instrument Code List as Reported by the Labs

(BK) - Buchel Strip Compression Tester BK-155

(LU) - L & W 52 without moisture correction (was 53)

(LY) - L & W 152 with moisture correction

(TT) - TMI Short Span Compression, 17-34 (MB K455)

(LA) - L & W Autoline

(LW) - L & W 53 with moisture correction (was 53M)

(LZ) - L & W (model not specified)

(XX) - Instrument make/model not specified by lab

Containerboard Interlaboratory Testing Program
Analysis 228

Roughness - Stylus Method, 69 lb Linerboard - 69C
TAPPI Provisional Test Method T575



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
37QEHB	147.4	-0.03	11.8	140.5	0.45	12.7	3	EV
39TGZL	124.6	-0.52	9.9	122.6	-0.64	12.1	3	EV
4N2T7K	112.5	-0.79	8.9	117.4	-0.96	12.1	4	LA
6TB9DM	142.0	-0.15	12.0	142.9	0.60	13.9	4	EV
77UA9K	255.5	2.31 *	122.4	241.0	6.62X	143.1	4	LA
792FZM	155.0	0.13	25.2	146.1	0.80	21.0	4	LA
A8VECJ	125.7	-0.50	9.7	121.9	-0.69	7.9	4	EV
B4CJ9Q	134.9	-0.30	14.5	137.7	0.28	12.4	4	EV
D7WBHX	133.0	-0.34	12.9	134.4	0.08	14.2	2	EV
EK3WAM	137.5	-0.24	12.7	142.4	0.57	10.8	4	EV
EWYZDG	100.1	-1.05	5.8	102.2	-1.90	7.2	4	EV
JMWFVW	149.3	0.01	20.6	160.6	1.69	18.9	3	EV
LVZ8KG	151.3	0.05	25.9	140.5	0.45	24.0	4	LA
PRRZM9	113.3	-0.77	4.5	112.1	-1.29	8.1	4	EV
RZDYC6	110.3	-0.83	11.4	105.0	-1.73	10.0	4	EV
VGT72X	139.7	-0.20	12.9	138.8	0.35	12.1	3	XX
X6PVJ2	239.8	1.97	120.1	160.4	1.68	61.2	4	EV
YAGL64	128.8	-0.43	12.8	128.4	-0.29	12.9	4	LA
YDJF9D	120.5	-0.61	15.4	134.0	0.06	15.7	4	EV
ZNUCHV	256.0	2.32 *	42.8	141.2	0.50	24.6	4	LA

Consensus (All Labs) Results

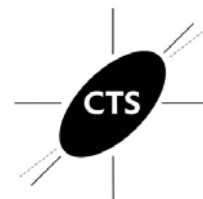
Month Mean	148.86	Grand Mean	133.11
Avg SDr	41.72	Avg SDr	20.12
SD btwn Labs	46.26	SD btwn Labs	16.30
Labs Incd	20	Labs Incd	19

Instrument Code List as Reported by the Labs

(EV) - Emveco Microgage Model 210-R

(LA) - L & W Autoline

(XX) - Instrument make/model not specified by lab



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
48WBAU	171.8	1.03	4.5	177.2	0.43	7.6	4	TM
77UA9K	153.0	-0.73	13.1	148.9	-1.14	17.3	4	TM
7ZK4LL	150.4	-0.98	3.0	149.9	-1.09	7.1	4	TM
8FCB4K	163.8	0.28	8.9	165.6	-0.21	8.0	2	SC
8NGRJ8	148.3	-1.17	23.1	164.5	-0.27	31.4	4	SC
9VKM9J	146.8	-1.31	12.2	152.1	-0.96	13.2	4	HZ
A8VE CJ	179.8	1.78	1.1	173.9	0.25	3.2	3	HY
B4CJ9Q	155.6	-0.49	6.9	153.1	-0.91	6.3	4	TM
BXJRRG	169.0	0.77	10.5	180.6	0.62	11.0	4	XX
C24RUH	57.5	-9.69 X	1.5	45.5	-6.89 X	1.2	3	XX
K8ERKD	172.6	1.10	7.6	170.8	0.08	6.6	4	HY
N2HEW7	160.6	-0.02	7.3	165.1	-0.24	6.1	4	SC
UHNRT4	167.0	0.58	7.5	173.2	0.21	7.9	4	SC
VGT72X	203.0	3.96 X	10.3	200.1	1.70	8.6	4	HY
YDJF9D	229.0	6.40 X	12.9	211.0	2.31 *	11.4	4	SC
ZNUCHV	151.8	-0.84	5.1	155.1	-0.80	8.5	4	TM

Consensus (All Labs) Results			
Month Mean	160.80	Grand Mean	169.39
Avg SDr	10.05	Avg SDr	12.17
SD btwn Labs	10.66	SD btwn Labs	17.98
Labs Incd	13	Labs Incd	15

Instrument Code List as Reported by the Labs

(HY) - Huygen Digitized Scott Internal Bond Tester

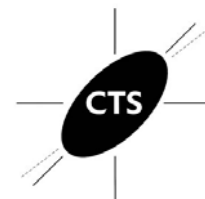
(HZ) - Huygen Internal Bond Tester with AccuPress

(SC) - Scott Internal Bond Tester (Manual)

(TM) - TMI Monitor/Internal Bond Tester

(XX) - Instrument make/model not specified by lab

Containerboard Interlaboratory Testing Program
 Analysis 234
COF Inclined Plane (Slide Angle), 36 lb Linerboard - 36Z
 TAPPI Official Test Method T815

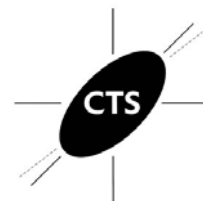


WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
2UFNWP	25.8	-0.61	1.9	26.4	-0.43	2.2	4	ZZ
37QEHB	25.4	-0.73	1.1	25.4	-1.03	1.3	3	ZZ
48WBAU	26.4	-0.41	4.7	26.4	-0.45	4.0	4	ZZ
6TB9DM	35.2	2.37 *	4.1	27.6	0.28	2.5	4	ZZ
77UA9K	28.0	0.09	4.1	25.8	-0.82	2.7	4	ZZ
8FCB4K	30.2	0.79	0.8	29.6	1.44	1.1	4	ZZ
B4CJ9Q	28.4	0.22	0.9	28.3	0.67	1.2	4	ZZ
C24RUH	24.8	-0.92	1.3	28.9	1.05	1.6	4	ZZ
EK3WAM	25.3	-0.78	1.6	25.6	-0.93	1.4	4	ZZ
G622QD	31.2	1.10	3.7	29.1	1.17	2.9	4	ZZ
K8ERKD	23.4	-1.37	1.1	24.5	-1.59	1.1	4	ZZ
RZDYC6	28.6	0.28	2.3	28.7	0.93	1.5	4	ZZ
U8PWWU	27.6	-0.04	2.3	27.1	-0.02	3.0	4	ZZ
VGT72X	25.4	-0.73	2.1	25.3	-1.12	1.5	4	ZZ
YDJF9D	25.6	-0.67	2.1	26.2	-0.55	2.4	3	ZZ
ZNUCHV	32.2	1.42	5.4	29.5	1.41	3.7	4	ZZ

Consensus (All Labs) Results			
Month Mean	27.72	Grand Mean	27.13
Avg SDr	2.84	Avg SDr	2.32
SD btwn Labs	3.16	SD btwn Labs	1.68
Labs Incd	16	Labs Incd	16

Instrument Code List as Reported by the Labs

(ZZ) - Instruments No Longer Tracked



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
48WBAU	48.6	-0.87	3.4	50.7	-0.61	3.0	4	HG
6TB9DM	51.6	0.34	1.9	51.0	-0.34	1.6	4	LP
77UA9K	48.6	-0.88	3.7	50.4	-1.03	3.6	4	XX
7M38RJ	53.4	1.10	1.2	52.4	1.09	2.7	4	XX
C24RUH	2.7	-19.81 X	0.1	40.7	-11.18 X	1.6	4	LA
D7WBHX	53.3	1.05	2.1	53.3	2.02*	2.1	1	XX
G622QD	50.1	-0.25	1.3	49.5	-1.97	1.6	4	LP
H6ZQ9F	51.0	0.13	2.8	51.6	0.31	2.0	4	XX
JMWFVW	47.3	-1.42	1.6	46.9	-4.63 X	2.1	4	LW
K8ERKD	50.2	-0.23	2.3	51.3	-0.06	3.0	4	HG
LVZ8KG	52.8	0.84	1.5	51.2	-0.15	1.6	4	LA
MXHTL4	50.5	-0.09	3.1	50.6	-0.74	2.7	4	GG
U8PWWU	44.7	-2.48 *	1.9	44.6	-7.04 X	2.0	4	GA
UHNRT4	51.2	0.18	2.7	51.2	-0.18	1.6	4	LP
VGT72X	54.5	1.57	1.7	52.3	1.01	1.6	4	XX
YAGL64	52.3	0.66	2.1	52.4	1.09	3.4	4	TL
YDJF9D	51.1	0.16	3.2	50.8	-0.59	2.6	3	HG
ZNUCHV	51.2	0.21	1.3	51.5	0.14	2.0	4	LA

Consensus (All Labs) Results			
Month Mean	50.72	Grand Mean	51.33
Avg SDr	2.36	Avg SDr	2.43
SD btwn Labs	2.43	SD btwn Labs	0.95
Labs Incd	17	Labs Incd	15

Instrument Code List as Reported by the Labs

(GA) - Gurley Precision #4340 Automatic Densometer
 (HG) - Technidyne - Hagerty Model #1 and Profile System
 (LP) - L & W Air Permeance Tester SE 166
 (TL) - Teledyne Gurley Densometer #4110, Oil Flotation

(GG) - Gurley Precision #4320 Densometer
 (LA) - L & W Autoline
 (LW) - L & W Gurley Densometer, Oil Flotation
 (XX) - Instrument make/model not specified by lab



WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
22W6PY	61.8	62.4	62.8	62.0	62.3	-0.06	2.6	0.4	62.4	0.00	2.5	0.4	16	LC
44WYFE	63.9	63.7	62.6 H	62.0	63.1	0.44	4.4	0.9	63.2	0.41	3.5	1.6	16	LD
4KLXPM	62.8	59.7	No Data	No Data	61.3	-0.65	3.4	2.2	59.8	-1.37	3.0	1.9	5	LZ
6TB9DM	61.6	61.8	61.4	61.6 L	61.6	-0.45	2.5	0.2 L	62.8	0.21	3.6	2.1	16	LZ
77UDXP	65.1 L	66.4	67.0 *	65.9 *	66.1	2.30 *	2.4	0.8	65.5	1.62	2.7	1.5	16	LC
792FZM	56.3 X	59.4	No Data	41.4 X	52.3	-6.11 X	2.9	9.6 H	56.5	-3.10 X	2.8	4.8 H	13	MB
8B7H9P	63.1	62.9	63.4	63.7	63.3	0.56	2.3	0.3	62.6	0.11	2.3	0.7	11	LD
8NGRJ8	60.5	58.6	62.7	60.5	60.6	-1.09	3.0	1.7	60.2	-1.14	2.9	1.6	16	LX
9DV6MB	58.6	59.0	59.7	57.3 *	58.7	-2.25 *	2.5	1.0	60.3	-1.10	2.7	1.8	16	LC
9VKM9J	61.6	65.4 H	63.9	63.7	63.7	0.80	3.3	1.6	65.1	1.40	3.8	1.9	13	LC
B4CJ9Q	61.1	61.3	61.2	62.1	61.4	-0.56	2.5	0.5	61.6	-0.45	2.9	0.9	16	LD
BBXDU2	63.3	63.7	64.4	63.5	63.7	0.84	2.4	0.5	63.7	0.66	2.9	1.0	16	EM
BH92XP	65.2	62.6	64.5	61.5	63.5	0.68	3.0	1.7	62.7	0.14	3.4	2.3	16	LC
BXJRRG	63.0	61.6	61.2	61.0	61.7	-0.39	3.1	0.9	60.6	-0.96	3.0	2.4	16	LC
D7WBHX	61.6	62.4	60.3	61.2	61.4	-0.60	3.6	0.9	60.9	-0.81	4.1	3.1 H	16	MB
DXW3JL	63.2 H	61.8	62.7	62.8	62.6	0.16	3.4	0.6	62.9	0.27	3.3	1.3	16	LZ
E6JYD2	64.1	68.4 *	61.7	63.7	64.5	1.30	3.1	2.8	66.1	1.95	4.3	3.8 H	15	LZ
EHY9N7	64.1	65.3	65.1	65.8 *	65.1	1.67	2.9	0.7	64.7	1.20	2.9	1.6	12	TM
ERM2XG	63.9 L	63.9 L	62.5	63.6 L	63.5	0.70	1.4	0.7	62.9	0.28	1.4	0.9	16	TD
G622QD	62.9	61.5	63.3	64.9	63.1	0.49	2.9	1.4	64.6	1.17	2.8	1.9	15	LC
GUXE9U	61.1	60.9	61.7	60.4	61.0	-0.80	3.0	0.5	61.7	-0.39	2.8	1.0	16	LD
H6ZQ9F	61.2	61.8	63.0	61.6	61.9	-0.26	3.5	0.8	62.0	-0.19	2.8	1.0	16	LD
HYJQL3	61.6 L	61.0	61.8 L	60.8 L	61.3	-0.65	1.1	0.5	61.7	-0.35	2.0	1.0	16	XX
J382H8	60.4	66.7	65.4	58.9	62.8	0.31	3.7	3.8 H	61.3	-0.58	3.3	2.9	12	XX
JMWFVW	55.5 XH	49.0 XH	46.2 XH	59.2	52.5	-6.02 X	8.6	6.0 H	55.6	-3.61 X	6.3	4.9 H	16	XX
K8ERKD	61.9	63.2	59.7	59.5	61.1	-0.77	3.3	1.8	61.1	-0.67	3.7	1.4	16	LC
LN2PYD	60.3	66.8	62.7	62.2	63.0	0.41	3.3	2.7	62.5	0.07	3.2	1.9	12	LC
LTA227	61.2	64.1	61.2	63.6	62.5	0.11	3.7	1.5	64.7	1.19	4.0	3.6 H	16	LC
MBRAR9	58.4	60.5	60.0	58.9	59.4	-1.78	3.4	1.0	60.7	-0.90	2.9	1.5	16	LC
N2HEW7	63.4	65.4	63.9	65.5	64.6	1.35	3.3	1.1	59.9	-1.33	3.1	3.1 H	16	LD
NFYD38	63.5	63.2	63.2	62.6	63.1	0.47	2.1	0.4	61.4	-0.54	2.7	1.3	16	EM
PALVYW	59.5	61.0	60.4	60.0	60.2	-1.30	4.1	0.6	60.2	-1.16	3.8	1.3	16	TG
Q8GPXV	59.7	63.1	62.0	61.9	61.7	-0.41	3.1	1.4	61.6	-0.43	2.9	0.9	16	TH
QLJY26	62.7	69.2 *	69.3 X	69.6 X	67.7	3.26 X	3.1	3.3 H	65.8	1.77	2.2	3.0 H	12	MB
QUN7G6	61.8	63.6	63.3	62.8	62.9	0.32	2.6	0.8	63.0	0.29	3.1	0.6	16	LD



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
RZDYC6	59.4 L	60.6	60.7	61.7	60.6	-1.06	2.6	0.9	59.8	-1.37	1.8	0.7	16	TH
TRVUWP	59.8	61.1	60.5	60.0	60.4	-1.22	3.0	0.6	59.9	-1.32	2.6	1.3	16	TD
ULC3CG	61.0	61.0	63.9	60.7	61.6	-0.43	2.1	1.5	61.1	-0.70	2.0	1.1	16	LC
UT3T64	61.9	62.1	61.3	61.5	61.7	-0.39	1.7	0.4	61.4	-0.51	1.7	0.9	16	LC
VGT72X	65.0 H	65.1	64.8	61.6	64.1	1.09	4.3	1.7	66.2	1.99	4.5	1.9	12	LC
WP6NGN	72.3 X	65.4	65.1	61.2 H	66.0	2.22*	6.4	4.6 H	66.2	2.01*	4.0	2.5	14	LC
WUE677	58.9	59.1	62.2	61.8	60.5	-1.13	2.5	1.7	61.4	-0.53	2.8	1.4	16	LD
Y2MELX	62.5	63.5	61.6	61.7	62.3	-0.02	2.8	0.9	62.4	-0.01	2.8	0.7	16	LD
ZZMVX2	62.6	62.4	63.0	62.0	62.5	0.10	2.3	0.4	62.6	0.08	2.5	0.4	16	LD

Consensus (All Labs) Results

Wk Mean	61.93	62.85	62.53	61.87	Month Mean	62.34	Grand Mean	62.40
Avg SDr	3.12	2.88	3.04	3.37	Avg SDr	3.12	Avg SDr	3.06
SD btwn Labs	1.78	2.48	1.70	1.89	SD btwn Labs	1.64	SD btwn Labs	1.90
Labs Includ	41	43	40	41	SD btwn Wks	1.52	SD btwn Wks	1.83
Labs Exclud	3	1	2	2	Labs Includ	41	Labs Includ	42
Labs not rcvd	0	0	2	1				

Instrument Code List as Reported by the Labs

- (EM) - Emerson 1200 Series
- (LD) - L&W Crush Tester 248
- (LZ) - L & W Crush Tester (model not specified)
- (TD) - TMI Digital Crush Tester, Model 17-09
- (TH) - TMI Compression Tester, Model 17-76
- (XX) - Instrument make/model not specified by lab
- (LC) - L & W Crush Tester 48
- (LX) - L & W 506
- (MB) - Messmer Buchel K440
- (TG) - TMI Compression Tester, Model 17-10
- (TM) - TMI/Hinde & Dauch



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
7M38RJ	72.6 L	73.6 L	73.6	73.8	73.4	-0.20	1.3	0.5	72.9	-0.34	1.4	0.7	16	XX
8B7H9P	72.9	73.1	72.5	73.4	73.0	-0.33	2.3	0.4 L	72.9	-0.33	2.3	0.4 L	11	LD
BH92XP	73.2	73.3	71.4	73.0	72.7	-0.40	2.5	0.9	70.9	-1.03	2.7	4.3	16	LZ
E6JYD2	76.4	78.5	77.6	75.3	76.9	0.80	2.4	1.4	75.0	0.43	3.4	2.9	15	LZ
ERM2XG	75.1	74.6 L	73.6	72.9	74.0	-0.03	1.9	1.0	73.1	-0.26	1.6	1.2	16	TD
G622QD	72.8	73.6	72.3	76.3	73.7	-0.12	2.2	1.8	74.0	0.06	3.0	1.4	15	XX
J382H8	73.8	63.8 *H	76.4	65.4 *H	69.9	-1.22	6.0	6.2 H	71.7	-0.73	5.1	5.3 H	12	TU
K8ERKD	78.2	78.2	79.5	78.4	78.6	1.26	2.7	0.6	77.6	1.34	2.6	0.8	16	LC
LN2PYD	80.8	76.8	77.3	76.6	77.9	1.06	3.0	2.0	78.8	1.74	2.7	1.4	11	LC
QLJY26	68.9 H	69.1	66.6 *	66.8	67.9	-1.78	3.1	1.3	69.5	-1.51	2.4	4.0	12	MB
ULC3CG	71.8	73.2 L	72.1	71.6 L	72.2	-0.56	1.6	0.7	72.1	-0.59	1.8	0.8	16	LC
WP6NGN	85.7 *	82.4	75.0	74.8	79.5	1.53	2.5	5.4 H	77.3	1.22	2.3	3.6	14	LC

Consensus (All Labs) Results

Wk Mean	75.19	74.17	73.99	73.20	Month Mean	74.13	Grand Mean	73.81
Avg SDr	2.64	3.62	2.12	2.85	Avg SDr	2.86	Avg SDr	2.78
SD btwn Labs	4.55	4.74	3.45	3.81	SD btwn Labs	3.52	SD btwn Labs	2.85
Labs Includ	12	12	12	12	SD btwn Wks	2.61	SD btwn Wks	2.77
Labs Exclud	0	0	0	0	Labs Includ	12	Labs Includ	12
Labs not rcvd	0	0	0	0				

Instrument Code List as Reported by the Labs

(LC) - L & W Crush Tester 48

(LZ) - L & W Crush Tester (model not specified)

(TD) - TMI Digital Crush Tester, Model 17-09

(XX) - Instrument make/model not specified by lab

(LD) - L&W Crush Tester 248

(MB) - Messmer Buchel K440

(TU) - TMI Universal Crush Tester (TMI K440)



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
44WYFE	48.7	47.7	48.5	47.6	48.1	1.49	1.9	0.6	47.2	1.40	1.8	1.0	16	LD
4KLXPM	42.6	43.9	No Data	No Data	43.2	-0.24	3.3	0.9	41.6	-0.59	2.7	2.2	5	EM
9VKM9J	41.1	40.4	42.4	41.0	41.2	-0.95	2.1	0.8	41.7	-0.55	2.6	0.9	15	LD
AJ8QK8	44.4	47.5	43.7	46.5	45.5	0.58	2.4	1.8	43.9	0.21	2.9	1.9	16	LZ
EHY9N7	49.7	46.6	43.0	46.3	46.4	0.89	2.8	2.7 H	46.2	1.03	2.8	2.3	12	LD
G622QD	37.8	39.3	39.4	38.0	38.6	-1.87	2.3	0.8	40.7	-0.90	2.4	2.3	15	LC
GUXE9U	47.6	49.4	47.4	48.1	48.1	1.50	3.3	0.9	46.4	1.12	3.5	1.2	16	LZ
H6ZQ9F	42.4	41.9	42.1	44.9 H	42.8	-0.38	3.5	1.4	42.4	-0.31	3.7	1.0	16	LD
JMWFVW	44.2	45.6	44.4	47.0 H	45.3	0.49	3.1	1.3	46.6	1.16	3.2	1.9	16	XX
K8ERKD	43.1	44.1 H	44.8	44.4	44.1	0.07	3.5	0.7	43.5	0.08	3.3	1.2	16	LC
MBRAR9	41.3	41.7	41.9	37.9	40.7	-1.14	2.4	1.9	40.7	-0.91	2.7	1.5	16	LC
NFYD38	42.5	40.0	39.9	41.9	41.1	-1.00	2.3	1.3	40.8	-0.88	2.1	0.9	16	LC
QLJY26	34.5*	34.1*	33.8 X	33.2*	33.9	-3.54 X	3.1	0.5	37.5	-2.06*	3.1	3.7 H	12	MB
QUN7G6	45.8	44.0	43.3	42.7	44.0	0.02	2.2	1.4	43.5	0.08	2.2	1.0	16	LD
UT3T64	47.8	47.9 L	48.0 L	47.3 L	47.8	1.37	1.1	0.3	47.9	1.64	1.2	0.4	16	LC
WM9DT2	40.5	40.6	40.5	41.3	40.7	-1.13	2.3	0.4	40.9	-0.86	2.1	1.5	16	TH
Y2MELX	45.7	43.2	45.0	45.5	44.9	0.34	2.3	1.1	45.0	0.62	2.3	0.9	16	LD
YQMTBT	44.4 L	43.6	43.4 L	44.0 L	43.8	-0.02	1.1	0.5	42.5	-0.28	1.3	1.6	16	WK

Consensus (All Labs) Results

Wk Mean	43.55	43.42	43.59	43.39	Month Mean	43.90	Grand Mean	43.29
Avg SDr	2.53	2.64	2.55	2.54	Avg SDr	2.55	Avg SDr	2.64
SD btwn Labs	3.83	3.79	2.72	4.11	SD btwn Labs	2.82	SD btwn Labs	2.81
Labs Includ	18	18	16	17	SD btwn Wks	1.26	SD btwn Wks	1.69
Labs Exclud	0	0	1	0	Labs Includ	17	Labs Includ	18
Labs not rcvd	0	0	1	1				

Instrument Code List as Reported by the Labs

(EM) - Emerson 1200 Series

(LD) - L&W Crush Tester 248

(MB) - Messmer Buchel K440

(WK) - Zwick Z005 Crush Tester

(LC) - L & W Crush Tester 48

(LZ) - L & W Crush Tester (model not specified)

(TH) - TMI Compression Tester, Model 17-76

(XX) - Instrument make/model not specified by lab



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
22W6PY	14.8	14.9	14.6	14.3	14.6	-0.45	1.0	0.2	14.7	-0.04	1.1	0.2	16	LB
44WYFE	14.6	14.0	15.2	14.5	14.6	-0.65	1.3	0.5	14.4	-0.79	1.2	0.4	16	LA
6TB9DM	14.3	14.1	14.2	14.3	14.2	-1.75	1.1	0.1 L	13.9	-2.05*	1.1	0.4	16	LU
77UDXP	14.2	14.4	14.9	15.0	14.6	-0.54	1.2	0.4	14.9	0.29	1.2	0.5	16	LW
792FZM	14.4 L	14.2 L	No Data	14.5 L	14.4	-1.24	0.0	0.2	14.5	-0.63	0.0	0.4	9	XX
8B7H9P	14.9	14.1	15.0	14.8 L	14.7	-0.26	1.0	0.4	14.6	-0.49	1.0	0.4	6	LA
AJ8QK8	15.3	15.7	14.3	14.6	15.0	0.48	1.3	0.7	15.1	0.85	1.2	0.5	16	LA
D7WBHX	15.2 L	14.5 L	14.5 L	14.5 L	14.7	-0.39	0.1	0.4	15.2	1.07	0.2	0.5	16	BK
DXW3JL	14.7	14.7	15.2	15.7	15.1	0.72	1.3	0.5	14.9	0.39	1.3	0.4	16	LW
EHY9N7	16.3*	16.1*	16.3 X	15.7	16.1	3.76 X	1.2	0.3	15.7	2.36*	1.1	0.5	12	LA
JMWFVW	15.8 L	14.8 L	15.5 L	15.1 L	15.3	1.48	0.0	0.4	17.4	6.67 X	0.1	4.3 H	16	XX
K8ERKD	15.1	14.5	15.2	14.7	14.9	0.17	1.0	0.3	15.0	0.63	1.1	0.2	16	LU
NFYD38	15.1	15.3	14.9	15.9*	15.3	1.43	1.4	0.4	14.3	-1.26	1.2	1.1 H	16	LB
Q8GPXV	14.8	17.8 X	14.2	14.4	15.3	1.48	1.0	1.7 H	14.6	-0.46	0.9	0.9 H	16	TT
RZDYC6	15.0	15.1	15.5	15.3	15.2	1.20	1.2	0.2	14.9	0.40	1.3	0.3	16	LW
UT3T64	15.1	14.8	14.4	14.7	14.8	-0.13	0.7	0.3	14.9	0.35	0.7	0.4	16	XX
ZVEDZU	14.1	14.1	15.1	14.2	14.4	-1.19	1.2	0.5	14.5	-0.62	1.1	0.5	16	LB
ZZMVX2	14.9	14.7	14.8	14.3	14.7	-0.37	1.2	0.2	14.8	0.01	1.2	0.2	16	LB

Consensus (All Labs) Results

Wk Mean	14.92	14.70	14.83	14.81	Month Mean	14.80	Grand Mean	14.75
Avg SDr	1.09	1.09	1.08	0.95	Avg SDr	1.05	Avg SDr	1.05
SD btwn Labs	0.55	0.59	0.43	0.52	SD btwn Labs	0.35	SD btwn Labs	0.39
Labs Includ	18	17	16	18	SD btwn Wks	0.55	SD btwn Wks	0.51
Labs Exclud	0	1	1	0	Labs Includ	17	Labs Includ	17
Labs not rcvd	0	0	1	0				

Instrument Code List as Reported by the Labs

(BK) - Buchel Strip Compression Tester BK-155

(LA) - L & W Autoline

(LB) - L & W Model 152

(LU) - L & W 52 without moisture correction (was 53)

(LW) - L & W 53 with moisture correction (was 53M)

(TT) - TMI Short Span Compression, 17-34 (MB K455)

(XX) - Instrument make/model not specified by lab