

Containerboard Interlaboratory Testing Program

Participant Summary Report #675 - December 2025

[Introduction to the Containerboard Program](#)

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

Analysis	Sample	Analysis Name
<u>201</u>	<u>BO18</u>	<u>Top to Bottom Box Compression Strength, Corrugated Boxes</u>
<u>202</u>	<u>EC17</u>	<u>Edgewise Compressive Strength, by T811, Corrugated Board</u>
<u>203</u>	<u>EC17</u>	<u>Edgewise Compressive Strength by T839, Corrugated Board</u>
<u>205</u>	<u>42N1</u>	<u>Bursting Strength (Mullen), 42 lb Linerboard</u>
<u>207</u>	<u>31K1</u>	<u>Bursting Strength (Mullen), 31 lb Linerboard</u>
<u>215</u>	<u>42N1</u>	<u>Ring Crush, 42 lb Linerboard</u>
<u>217</u>	<u>31K1</u>	<u>Ring Crush, 31 lb Linerboard</u>
<u>223</u>	<u>42N1</u>	<u>STFI, 42 lb Linerboard</u>
<u>225</u>	<u>31K1</u>	<u>STFI, 31 lb Linerboard</u>
<u>228</u>	<u>42N</u>	<u>Roughness - Stylus Method, 42 lb Linerboard</u>
<u>229</u>	<u>42N1</u>	<u>Roughness - Sheffield Method, 42 lb Linerboard</u>
<u>231</u>	<u>42N</u>	<u>Internal Bond, 42 lb Linerboard</u>
<u>234</u>	<u>42N</u>	<u>COF Inclined Plane (Slide Angle), 42 lb Linerboard</u>
<u>237</u>	<u>42N1</u>	<u>Air Resistance, 42 lb Linerboard</u>
<u>240</u>	<u>CM61</u>	<u>Flat Crush Strength (CMT), 26 lb Corrugating Medium</u>
<u>250</u>	<u>CM61</u>	<u>Fluted Edge Crush Strength (CFC), 26 lb Corrugating Medium</u>
<u>255</u>	<u>CM61</u>	<u>Ring Crush (RCT), 26 lb Corrugating Medium</u>
<u>261</u>	<u>CM61</u>	<u>STFI, 26 lb Corrugating Medium</u>

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; 31 lb. and 52 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
26# Corrugating Medium	CM61	December 2025 - Current
	CM13	September 2023 - November 2025
31# Linerboard	31K1	August 2024 - Current
	35E3	June 2022 - June 2024
42# Linerboard	42L4	December 2025 - Current
	42L4	August 2025 - November 2025
52# Linerboard	52M1	July 2025 - Current
	52J2	September 2024 - May 2025

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, 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 the CTS programs.

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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 cycle 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 SD - For each week, the average of the within-laboratory standard deviations (SD's) for all the participants, excluding those laboratories flagged with an 'X'. The Avg SD 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.
- SD - For each laboratory, the average of the weekly within-lab standard deviations (SD's) for all reported Weekly Means this month.
- SD Wk - 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 SD - For the current month, the average of the within-laboratory standard deviations (SD'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 btwn Group - For the current month, the standard deviation of the laboratory Means within the group about the Month Mean, excluding those laboratories flagged with an 'X'.
- SD btwn Wks - For the current month, the average of the laboratory between week standard deviations (SD Wks) for all the participants, excluding those laboratories flagged with an 'X'.

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 (SD's) for the weeks shown.
SD Wk	-	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.
Inst	-	The two letter instrument code. Codes are summarized at the bottom of the last analysis page.

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 SD	-	For the cumulative period, the average of the within-laboratory standard deviations (SD'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 btwn Wks	-	For the cumulative period, the average of the laboratory between week standard deviations for all the participants, excluding those laboratories flagged with an 'X'.
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:

<u>Flag</u>	<u>Explanation</u>
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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 recommended. |
| * | 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 SD for each week is not shown, but laboratory average SD and consensus average SD values are shown. |
| L | Indicates low within-laboratory standard deviation. The laboratory SD for each week is not shown, but laboratory monthly average SD and consensus average SD 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). |



Containerboard Interlaboratory Testing Program
 Analysis 201
Top to Bottom Box Compression Strength, Corrugated Boxes - BO18
 TAPPI Official Test Method T804

Report #675
December 2025

WebCode	Monthly Results			Cumulative Results					Inst
	Mean	CPV	SD	Mean	CPV	SD Months	Months		
3B6E6E	644.4	2.00 *	10.42	625.8	2.18 *	25.38	4	LG	
634ZXA	534.3	-0.86	38.67	559.4	-0.25	20.01	4	EX	
64ZJYB	582.5	0.39	5.15 L	582.0	0.58	0.72	2	EX	
9U3MQ6	696.0	3.34 X	21.46	655.2	3.26 X	36.15	3	LG	
AKBQ2A	546.1	-0.56	35.04	545.1	-0.77	1.53 L	4	EX	
AUEW33	601.4	0.88	11.22	597.6	1.15	3.68 L	4	LO	
CPF7N3	647.4	2.08 *	11.74	621.4	2.02 *	20.79	4	EX	
DFKQC4	529.7	-0.98	61.62 H	550.7	-0.56	44.23	4	LM	
F2XX23	608.0	1.05	32.16	586.6	0.75	27.75	4	ER	
LQFHJV	560.4	-0.19	53.18	552.2	-0.51	17.54	4	LG	
MRAFMV	597.2	0.77	14.81	586.2	0.73	33.99	4	EX	
MZ3M8L	550.6	-0.44	39.81	554.3	-0.43	13.34	4	LG	
NKKEKN	548.2	-0.50	35.18	569.4	0.12	36.04	4	LS	
NZWT2L	525.9	-1.08	37.54	543.1	-0.84	42.43	4	LS	
QDEF9P	579.9	0.32	35.99	550.2	-0.58	20.23	4	ER	
QVF87J	600.9	0.87	46.85	528.6	-1.37	80.89 H	4	ET	
TUF4DK	560.2	-0.19	10.16	591.7	0.94	21.54	4	LM	
VPTB4P	543.6	-0.62	11.97	543.7	-0.82	22.14	4	ER	
WDDFQB	522.8	-1.16	24.07	543.2	-0.84	22.64	4	EX	
YCW3YJ	579.5	0.31	35.41	570.7	0.17	22.43	4	EX	
YFWEVJ	546.6	-0.55	32.69	555.5	-0.39	13.86	4	EX	
YHYEVG	508.8	-1.53	10.92	531.5	-1.27	17.81	4	TB	
Consensus (All Labs) Results									
Month Mean			567.54	Grand Mean		566.13			
Avg SD			32.36	Avg SD Months		29.59			
SD btwn Labs			38.43	SD btwn Labs		27.35			
Labs Incl			21	Labs Incl		21			

Consensus By Method

Test Method	Group Mean	SD btwn Group	Difference from Grand Mean	Labs Included
Hot melt adhesive sealing	568.56	43.26	1.02	8
Clip sealing	566.92	37.00	0.63	13



Containerboard Interlaboratory Testing Program

Analysis 201

Report #675

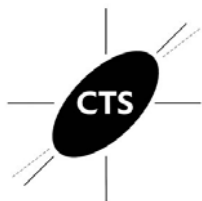
December 2025

Top to Bottom Box Compression Strength, Corrugated Boxes - BO18

TAPPI Official Test Method T804

Key to Instrument Codes Reported by Participants

ER	Emerson 6200 Series	ET	Emerson 7200
EX	Emerson Apparatus (Model not specified)	LG	TLS / L.A.B. Validator Series
LM	Lansmont 122-15k	LO	Lansmont 152-30k
LS	Lansmont Squeezer	TB	TMI Monitor/Compression Tester, Model 17-70



Containerboard Interlaboratory Testing Program
 Analysis 202
Edgewise Compressive Strength, by T811, Corrugated Board - EC17
 TAPPI Official Test Method T811

Report #675
December 2025

WebCode	Monthly Results				Cumulative Results				Inst
	Mean	CPV	SD		Mean	CPV	SD Months	Months	
4GTFN4	40.9	-0.13	2.24		39.4	-0.57	2.57	4	TS
64ZJYB	48.9	1.69	0.81	L	48.9	1.81 *	0.05	2	TL
78VHX8	36.3	-1.20	2.06		36.6	-1.25	2.83	3	TH
LQFHJV	45.4	0.90	1.68		44.8	0.79	0.88	4	EX
MAT9DK	41.4	-0.04	0.92	L	42.0	0.10	2.00	4	XX
NZWT2L	36.8	-1.10	6.17	H	37.8	-0.96	2.11	4	LD
QDEF9P	38.9	-0.61	3.05		38.0	-0.91	1.73	4	EN
W3WV7E	37.0	-1.03	0.98	L	39.8	-0.45	2.23	4	TS
WDDFQB	45.6	0.94	1.20		45.8	1.04	0.55	4	LC
YFWEVJ	44.0	0.57	2.47		43.2	0.40	1.53	4	LC

Consensus (All Labs) Results			
Month Mean	41.52	Grand Mean	41.63
Avg SD	2.64	Avg SD Months	1.85
SD btwn Labs	4.33	SD btwn Labs	4.01
Labs Incl	10	Labs Incl	10

Key to Instrument Codes Reported by Participants

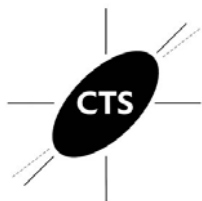
EN	Emerson 2200	EX	Emerson (model not specified)
LC	L&W Crush Tester 48	LD	L&W Crush Tester 248
TH	TMI Monitor/Compression Tester, Model 17-76	TL	Tech-Lab Systems Compression
TS	TMI Digital Crush Tester, Model 17-56	XX	Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program
 Analysis 203
Edgewise Compressive Strength by T839, Corrugated Board - EC17
 TAPPI Official Test Method T839

Report #675
December 2025

WebCode	Monthly Results				Cumulative Results				Inst
	Mean	CPV	SD		Mean	CPV	SD Months	Months	
2EDABC	52.2	1.94 *	2.18		50.2	1.48	2.99	4	TE
3B6E6E	46.8	0.37	1.49		47.5	0.64	3.17	4	EM
43AXTE	46.2	0.17	1.29		44.7	-0.24	2.36	4	IX
4CJ376	43.4	-0.63	3.19 H		45.2	-0.10	1.65	4	EM
4GTFN4	43.7	-0.53	1.85		43.2	-0.73	1.83	4	TS
64ZJYB	48.5	0.86	0.82		48.5	0.96	0.00	2	TL
78VHX8	46.2	0.20	2.11		43.3	-0.70	2.82	3	TH
7UPGDB	49.3	1.07	2.17		46.9	0.44	1.76	4	EM
9U3MQ6	43.8	-0.50	0.91		44.6	-0.29	1.53	4	BU
AUEW33	42.4	-0.92	3.52 H		43.1	-0.77	2.31	4	LD
CPF7N3	44.9	-0.19	1.09		47.0	0.49	1.57	4	CT
D3Z9JZ	46.0	0.13	1.56		44.5	-0.33	1.46	4	EM
DFKQC4	42.2	-0.96	1.50		44.9	-0.17	2.00	4	TG
EZMVE4	52.9	2.14 *	2.60		52.0	2.07 *	1.27	4	TG
F2XX23	41.7	-1.12	2.18		41.2	-1.37	2.14	4	LD
HQCNBY	45.8	0.08	1.96		46.2	0.24	1.02	4	LD
K93M8N	46.7	0.34	0.65 L		48.5	0.97	1.36	4	EM
LQFHJV	46.7	0.34	1.26		46.7	0.39	0.72	4	LY
MAT9DK	44.3	-0.37	1.73		44.5	-0.32	0.79	4	XX
MRAFMV	39.1	-1.87	1.43		40.6	-1.54	2.14	4	LD
NKKEKN	44.0	-0.46	1.11		44.4	-0.34	1.64	4	EM
NZWT2L	46.5	0.27	2.68		44.1	-0.44	1.67	4	LD
QDEF9P	42.7	-0.83	2.07		42.2	-1.05	1.04	4	EN
QRVEUG	36.5	-2.63 *	1.18		38.4	-2.26 *	1.81	4	BU
QVF87J	47.3	0.50	1.05		46.7	0.37	0.81	4	TD
TQBHEM	46.9	0.39	1.55		47.3	0.56	0.72	4	LC
TUF4DK	44.6	-0.28	1.60		44.0	-0.48	1.43	4	EM
TVQTRQ	33.0	-3.65 X	3.34 H		31.9	-4.29 X	1.81	4	XX
VBRCHD	47.8	0.65	1.15		43.5	-0.64	3.76 H	3	TU
VPTB4P	44.4	-0.34	1.18		45.6	0.04	0.95	4	EM
VTRNRE	49.0	1.00	2.19		49.6	1.32	2.84	4	MK
W3WV7E	40.2	-1.56	0.85		40.8	-1.50	0.67	4	TS
WDDFQB	47.2	0.47	1.50		49.1	1.15	2.30	4	LC
WZTZMC	50.1	1.32	0.82		50.0	1.43	0.45	4	EM
X8MPGK	42.8	-0.80	1.38		41.0	-1.41	1.90	4	TD
YFWEVJ	47.6	0.60	1.59		47.9	0.77	0.63	4	LC
YHYEVG	49.6	1.18	1.04		49.8	1.36	1.07	4	LD



Containerboard Interlaboratory Testing Program
Analysis 203
Edgewise Compressive Strength by T839, Corrugated Board - EC17
TAPPI Official Test Method T839

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December 2025

Consensus (All Labs) Results			
Month Mean	45.56	Grand Mean	45.48
Avg SD	1.75	Avg SD Months	1.83
SD btwn Labs	3.45	SD btwn Labs	3.16
Labs Incl'd	36	Labs Incl'd	36

Key to Instrument Codes Reported by Participants

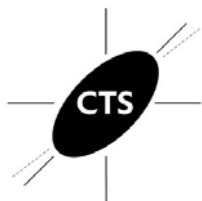
BU	Buchel Digital Crush Tester	CT	Con-Ten
EM	Emerson 1200 Series	EN	Emerson 2200
IX	Instron (model not specified)	LC	L&W Crush Tester 48
LD	L&W Crush Tester 248	LY	L&W 830
MK	Mark-10 ESM303	TD	TMI Digital Crush Tester, Model 17-09
TE	TMI Monitor/Compression Tester, Model 17-60	TG	TMI Digital Crush Tester, 17-76
TH	TMI Monitor/Compression Tester, Model 17-76	TL	Tech-Lab Systems Compression
TS	TMI Digital Crush Tester, Model 17-56	TU	TMI Universal Crush Tester (TMI K440)
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
Analysis 205
Bursting Strength (Mullen), 42 lb Linerboard - 42N1
 TAPPI Official Test Method T807

Report #675
December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
2EDABC	110.9	116.3	113.3	111.8	113.1	-0.14	9.2	2.4	113.1	-0.14	9.2	2.4	4	LC
2N6FFB_AL	116.9 H	115.1	124.4 *	114.5	117.7	1.10	10.8	4.6	117.7	1.10	10.8	4.6	4	AL
3M4389	113.5	118.3	119.0	114.8	116.4	0.75	9.7	2.6	116.4	0.75	9.7	2.6	4	TB
6343ME_AL	112.1	107.4	104.2 *	106.3	107.5	-1.64	8.0	3.3	107.5	-1.64	8.0	3.3	4	XX
77PZYB	117.9	116.7	118.3	124.9	119.5	1.57	7.9	3.7	119.5	1.57	7.9	3.7	4	LA
78VHX8	116.5	114.3	119.7	120.9	117.8	1.14	7.3	3.0	117.8	1.14	7.3	3.0	4	TX
7UT22D	110.8	111.2	No DATA	No DATA	111.0	-0.70	8.4	0.3	111.0	-0.70	8.4	0.3	2	AX
7UT22D_AL	111.4	109.3	No DATA	No DATA	110.4	-0.87	4.9	1.5	110.4	-0.87	4.9	1.5	2	AL
83Y7R9	130.3 X	124.7 *	122.3 H	123.1	125.1	3.09 X	12.8	3.6	125.1	3.09 X	12.8	3.6	4	XX
8TU738	116.3	112.9	110.5	117.4	114.3	0.18	8.6	3.2	114.3	0.18	8.6	3.2	4	LA
8TU738_AL	113.7	112.3	113.9	112.8	113.1	-0.12	7.6	0.8	113.1	-0.12	7.6	0.8	4	AL
94BDE3	108.9	110.7	111.5	106.1	109.3	-1.16	7.4	2.4	109.3	-1.16	7.4	2.4	4	LC
9T88D9	114.1	115.1	114.6	113.6	114.3	0.20	6.8	0.6	114.3	0.20	6.8	0.6	4	LJ
9WA6N2	116.7	120.2	116.8	117.3	117.8	1.12	6.9	1.6	117.8	1.12	6.9	1.6	4	LA
BTHQBB_AL	106.8	114.5	108.1 L	109.5	109.7	-1.05	6.5	3.4	109.7	-1.05	6.5	3.4	4	AL
CPF7N3	115.0	122.0	116.0	119.0	118.0	1.18	8.2	3.2	118.0	1.18	8.2	3.2	4	XX
E24T84	113.7	108.2	110.4	114.5	111.7	-0.50	10.7	2.9	111.7	-0.50	10.7	2.9	4	LC
EYU69P_AL	113.7 L	116.3 L	113.3 L	114.4 L	114.4	0.22	1.5	1.3	114.4	0.22	1.5	1.3	4	AL
F2XX23	110.5	109.6	109.6	108.3	109.5	-1.10	8.1	0.9	109.5	-1.10	8.1	0.9	4	LZ
GBZTHX_AL	120.0	117.4	120.2	115.2	118.2	1.23	7.4	2.3	118.2	1.23	7.4	2.3	4	AL
GG6EMV_AL	113.5	116.0	106.0	106.0 H	110.4	-0.86	12.7	5.2	110.4	-0.86	12.7	5.2	4	AL
H4E4DU	121.4	118.7	115.1	125.7 *	120.2	1.78	7.5	4.5	120.2	1.78	7.5	4.5	4	LC
H4E4DU_AL	113.3	116.7	109.8	116.0	113.9	0.09	7.6	3.1	113.9	0.09	7.6	3.1	4	AL
JFQQ2L_AL	118.3	120.4	119.8	120.1	119.7	1.63	10.1	1.0	119.7	1.63	10.1	1.0	4	AL
JYYUZQ	109.9 L	108.6 L	110.6 L	109.7	109.7	-1.05	3.6	0.8	109.7	-1.05	3.6	0.8	4	XX
KDUUPW	115.0	120.2	114.7	118.9	117.2	0.97	8.8	2.7	117.2	0.97	8.8	2.7	4	LJ
L84XMR	136.1 X	136.6 X	131.5 XH	132.2 X	134.1	5.51 X	11.6	2.6	134.1	5.51 X	11.6	2.6	4	AX
LP3ZFP	110.1	106.2	110.9	114.5	110.4	-0.85	6.6	3.4	110.4	-0.85	6.6	3.4	4	LA
MRAFMV	122.0 *	110.4	107.6	109.4	112.4	-0.34	9.1	6.5 H	112.4	-0.34	9.1	6.5 H	4	AH
MZ2VCY_AL	116.0	No DATA	114.3	113.9	114.7	0.31	8.3	1.1	114.7	0.31	8.3	1.1	3	AL
NPZPXR	120.0	118.9	120.8	114.8	118.6	1.35	8.3	2.7	118.6	1.35	8.3	2.7	4	XX
NUDKNM_AI	117.5	112.1	111.8	120.7	115.5	0.52	8.4	4.3	115.5	0.52	8.4	4.3	4	AL
NZWT2L	114.6	115.9	114.0	116.8	115.3	0.46	9.2	1.3	115.3	0.46	9.2	1.3	4	LA
PV39JM_AL	104.3 *	102.6 *	106.1	103.8 *	104.2	-2.52 *	7.2	1.5	104.2	-2.52 *	7.2	1.5	4	AL
PX72DL_AL	110.1	112.9	114.7	118.6	114.0	0.12	8.6	3.5	114.0	0.12	8.6	3.5	4	XX



Containerboard Interlaboratory Testing Program
Analysis 205
Bursting Strength (Mullen), 42 lb Linerboard - 42N1
 TAPPI Official Test Method T807

Report #675
December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	
PY3KFM	117.1	113.9	116.1	114.3	115.4	0.48	9.2	1.5	115.4	0.48	9.2	1.5	4	LA
QM2KWF	112.0	112.9	110.1	110.9	111.5	-0.57	6.7	1.2	111.5	-0.57	6.7	1.2	4	XX
QVWMYR_A	118.1	116.2	119.0	116.5	117.4	1.03	9.7	1.3	117.4	1.03	9.7	1.3	4	AL
RU3WTD_AL	111.9	121.8 H	105.8	107.3	111.7	-0.51	15.7	7.2 H	111.7	-0.51	15.7	7.2 H	4	AL
T2WLML_AL	108.0	107.3	110.8	111.9	109.5	-1.10	7.2	2.2	109.5	-1.10	7.2	2.2	4	AL
UEHAFK	116.7	113.7	111.7	111.9	113.5	-0.02	7.1	2.3	113.5	-0.02	7.1	2.3	4	LC
UY3BBJ	115.4	115.5	113.5	113.6	114.5	0.24	6.3	1.1	114.5	0.24	6.3	1.1	4	LB
V74M7G	117.4	117.4	No DATA	No DATA	117.4	1.02	8.8	0.0	117.4	1.02	8.8	0.0	2	AH
VX7Y6J	133.7 X	125.9 *	122.5	128.2 *	127.6	3.75 X	11.1	4.7	127.6	3.75 X	11.1	4.7	4	AX
WZTZMC_AI	107.7	105.4	111.0	110.0	108.5	-1.37	8.5	2.5	108.5	-1.37	8.5	2.5	4	AL
XE42W8	107.1	114.4	No DATA	No DATA	110.7	-0.77	5.9	5.2	110.7	-0.77	5.9	5.2	2	XX
XFXR3L	113.7 L	113.3 L	113.7 L	113.3 L	113.5	-0.03	1.2	0.2 L	113.5	-0.03	1.2	0.2 L	4	LA
YFWEVJ	114.9	111.7	115.1	114.8	114.1	0.13	7.6	1.6	114.1	0.13	7.6	1.6	4	AH
YHYEVG	102.6 *	109.3	110.4	108.8	107.8	-1.56	8.7	3.5	107.8	-1.56	8.7	3.5	4	XX

					Consensus (All Labs) Results			
Wk Mean	113.65	114.27	113.68	114.43	Month Mean	113.60	Grand Mean	113.60
Avg SDr	8.17	9.22	8.61	7.90	Avg SD	8.27	Avg SD	8.27
SD btwn Labs	4.31	5.01	4.82	5.44	SD btwn Labs	3.72	SD btwn Labs	3.72
Labs Incl	46	47	44	44	SD btwn Wks	2.98	SD btwn Wks	2.98
Labs Excl	3	1	1	1	Labs Incl	46	Labs Incl	46
Labs not Rcvd	0	1	4	4				

Key to Instrument Codes Reported by Participants

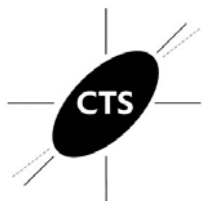
AH	Perkins Model AH	AL	L & W Autoline 400
AX	Perkins Mullen Tester (model not specified)	LA	L&W Bursting Strength Tester
LB	L&W Burst-O-Matic	LC	L&W Autoline (205 Enrollment)
LJ	L&W Bursting Strength Tester J-Type	LZ	L&W (model not specified)
TB	TMI Monitor/Burst 1000	TX	TMI Monitor/Burst (model not specified)
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
Analysis 207
Bursting Strength (Mullen), 31 lb Linerboard - 31K1
 TAPPI Official Test Method T807

Report #675
December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
2EDABC	78.2	74.8	75.2	74.3	75.6	0.30	5.4	1.8	74.1	-0.32	6.1	2.5	12	LC
2N6FFB_AL	79.6	79.7	79.1	77.7	79.0	1.38	6.2	0.9	78.7	1.36	5.9	1.1	12	XX
3M4389	78.1	74.5	76.2	74.8	75.9	0.39	6.5	1.6	77.2	0.80	6.2	2.2	12	TB
6343ME_AL	68.6	70.9	71.3	69.4	70.0	-1.48	5.9	1.2	71.0	-1.47	5.3	1.5	12	XX
77PZYB	77.7	76.7	75.3	77.4	76.8	0.66	4.6	1.1	77.4	0.87	4.3	1.7	12	LA
78VHX8	79.6	79.8	79.3	77.6	79.1	1.39	4.0	1.0	80.1	1.86	4.1	1.6	8	TX
7UT22D	68.4	70.4	No DATA	No DATA	69.4	-1.68	5.5	1.4	69.9	-1.86	5.4	1.2	7	AX
7UT22D_AL	71.6	72.2	No DATA	No DATA	71.9	-0.88	3.2	0.4	72.5	-0.92	4.9	1.5	7	AL
83Y7R9	76.8	77.1	79.8	78.4	78.0	1.06	7.4	1.4	77.7	0.99	7.7	2.5	12	XX
8TU738	78.4	77.6	80.7	75.0	77.9	1.02	5.6	2.4	78.7	1.34	5.4	2.1	12	LA
8TU738_AL	75.3	74.8	73.7	72.7	74.1	-0.18	4.2	1.2	75.0	0.01	4.0	1.6	12	AL
94BDE3	73.9	73.5	69.5	72.2	72.3	-0.76	5.4	2.0	72.4	-0.95	5.5	1.5	12	LA
9T88D9	72.2	74.5 L	75.0	75.8	74.4	-0.10	3.5	1.5	74.4	-0.22	3.5	1.5	4	LJ
9WA6N2	80.3	80.2	79.6	80.4	80.1	1.72	3.5	0.4	78.3	1.22	5.2	2.5	8	LA
BTHQBB_AL	77.2	76.6	79.4	77.0 L	77.5	0.91	3.7	1.2	78.0	1.10	3.5	0.9	10	AL
CPF7N3	80.0	75.5 H	79.0	77.5	78.0	1.05	7.4	2.0	77.8	1.01	6.7	1.8	12	XX
E24T84	71.4	67.3 *	70.6	70.1	69.8	-1.54	6.3	1.8	72.8	-0.81	6.3	2.9	12	LC
EYU69P_AL	74.7	71.9 L	70.4 L	71.2 L	72.1	-0.83	2.2	1.9	74.8	-0.08	4.7	3.5	8	AL
F2XX23	67.9	73.0	69.6	73.8	71.1	-1.14	6.2	2.8	71.9	-1.15	5.8	2.3	12	LA
GBZTHX_AL	76.1	77.1	77.2	77.0	76.8	0.68	5.6	0.5	77.6	0.94	5.1	1.5	12	AL
GG6EMV_AL	74.6	73.5	76.6	73.2	74.5	-0.07	4.8	1.5	75.3	0.10	5.8	1.6	12	AL
H4E4DU	73.4	77.2	74.6	82.3 *	76.9	0.69	5.5	4.0	74.9	-0.05	6.0	3.2	12	LC
H4E4DU_AL	75.5	78.0	73.7	78.0 L	76.3	0.52	4.2	2.1	76.0	0.39	5.5	2.4	12	AL
JFQQ2L_AL	72.5	74.4	71.4	71.6	72.5	-0.69	7.2	1.4	74.4	-0.22	7.1	2.9	8	AL
JYYUZQ	76.4 L	76.4	77.2 L	77.6	76.9	0.70	2.7	0.6	76.5	0.56	2.4	0.8	12	XX
KDUUPW	75.9	74.1	76.9	77.9	76.2	0.49	5.8	1.6	76.4	0.51	6.1	1.8	12	LJ
L84XMR	80.2	85.2 X	76.4	80.1	80.5	1.84	6.8	3.6	76.6	0.59	6.6	10.0 H	12	AX
LP3ZFP	68.1	73.2	67.8	65.6 *	68.7	-1.91	5.0	3.2	69.7	-1.94 *	5.9	2.1	12	LA
MRAFMV	73.9	78.0	75.2	74.8	75.5	0.25	4.3	1.8	72.3	-1.00	5.5	3.0	12	AH
MZ2VCY_AL	80.8 L	No DATA	75.2	No DATA	78.0	1.04	3.6	3.9	77.6	0.96	3.6	2.5	7	AL
NPZPXR	75.5	76.5	75.8	73.1	75.2	0.17	5.6	1.5	74.9	-0.02	5.5	3.3	12	XX
NUDKNM_AI	71.9	77.6	75.4	75.0	75.0	0.09	7.5	2.3	75.1	0.05	6.6	2.3	12	AL
NZWT2L	76.4	76.6	75.9	73.6	75.6	0.30	6.2	1.4	75.0	0.02	6.0	2.1	12	LA
PV39JM_AL	70.1	67.9 *	71.5	70.4	70.0	-1.50	5.7	1.5	72.0	-1.08	6.3	2.6	12	AL
PX72DL_AL	75.8	76.5	68.2	71.0	72.9	-0.58	6.5	4.0	73.8	-0.45	5.9	2.5	12	XX



Containerboard Interlaboratory Testing Program
Analysis 207
Bursting Strength (Mullen), 31 lb Linerboard - 31K1
 TAPPI Official Test Method T807

Report #675
December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	
PY3KFM	71.9	74.2 H	71.9	74.9	73.2	-0.47	6.9	1.6	76.0	0.38	7.0	2.9	12	LA
QM2KWF	69.0	72.5 H	68.3	72.5	70.6	-1.31	7.1	2.2	70.2	-1.76	6.3	1.7	12	XX
QVWMYR_A	73.8	76.8	66.8 *	71.4	72.2	-0.79	5.9	4.2 H	74.6	-0.16	6.9	3.0	12	AL
RU3WTD_AL	68.8	66.3 *	69.8	72.8	69.4	-1.66	5.4	2.7	71.6	-1.25	6.3	2.6	12	AL
T2WLML_AL	71.3	73.4	73.8 H	71.9	72.6	-0.66	7.6	1.2	74.1	-0.31	6.5	2.4	12	AL
UEHAFK	76.2	73.5	75.2	73.0	74.5	-0.07	3.6	1.5	73.1	-0.70	4.4	1.9	12	LC
UY3BBJ	72.4	72.6	72.6	71.0	72.1	-0.81	7.0	0.8	72.8	-0.80	5.8	2.8	12	LB
V74M7G	79.8	76.8	No DATA	No DATA	78.3	1.15	6.7	2.1	79.2	1.53	6.1	1.9	7	AH
VX7Y6J	84.1 *H	77.1	76.5 H	83.5 *	80.3	1.78	9.5	4.1	81.1	2.23 *	7.6	2.8	12	AX
WZTZMC_AI	74.0	71.2	72.2	75.4	73.2	-0.48	5.4	1.9	72.1	-1.06	5.1	2.0	12	AL
XE42W8	75.5	77.8	No DATA	No DATA	76.6	0.62	4.5	1.6	76.7	0.64	4.0	1.4	6	XX
XFXR3L	75.9 L	76.1 L	76.2 L	75.4 L	75.9	0.39	1.2	0.4	76.0	0.38	1.2	0.3 L	12	LA
YFWEVJ	75.0	73.0	74.3	74.4	74.2	-0.16	6.5	0.8	74.6	-0.15	5.9	1.2	12	AH
YHYEVG	71.4	71.7	71.6	73.8	72.1	-0.82	5.2	1.1	71.9	-1.11	5.8	1.3	12	XX

					Consensus (All Labs) Results			
Wk Mean	74.82	74.70	74.26	74.69	Month Mean	74.69	Grand Mean	74.99
Avg SDr	5.89	5.58	5.46	5.83	Avg SD	5.65	Avg SD	5.63
SD btwn Labs	3.81	3.13	3.57	3.52	SD btwn Labs	3.15	SD btwn Labs	2.74
Labs Incl	49	47	45	44	SD btwn Wks	2.07	SD btwn Wks	2.59
Labs Excl	0	1	0	0	Labs Incl	49	Labs Incl	49
Labs not Rcvd	0	1	4	5				

Key to Instrument Codes Reported by Participants

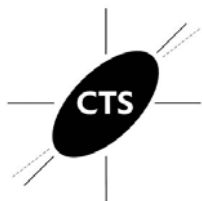
AH	Perkins Model AH	AL	L & W Autoline 400
AX	Perkins Mullen Tester (model not specified)	LA	L&W Bursting Strength Tester
LB	L&W Burst-O-Matic	LC	L&W Autoline (207 Enrollment)
LJ	L&W Bursting Strength Tester J-Type	TB	TMI Monitor/Burst 1000
TX	TMI Monitor/Burst (model not specified)	XX	Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program
 Analysis 215
Ring Crush, 42 lb Linerboard - 42N1
 TAPPI Official Test Method T822

Report #675
December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
2EDABC	102.5	102.5	104.3	102.9	103.1	1.71	3.3	0.8	103.1	1.71	3.3	0.8	4	MB
2N6FFB	103.8	101.7	85.2 *H	102.2	98.2	0.36	4.3	8.7 H	98.2	0.36	4.3	8.7 H	4	LZ
3M4389	96.2	96.0	96.2	95.6	96.0	-0.26	2.1	0.3 L	96.0	-0.26	2.1	0.3 L	4	LD
4CVYBA	95.7	97.3 L	96.2 L	96.5 L	96.4	-0.14	1.3	0.6	96.4	-0.14	1.3	0.6	4	MZ
6343ME	94.7	96.0	95.9	95.1	95.4	-0.42	2.2	0.6	95.4	-0.42	2.2	0.6	4	LD
77PZYB	86.9 *H	89.3 *	89.9	92.4	89.6	-2.04 *	4.0	2.3	89.6	-2.04 *	4.0	2.3	4	LC
8QA7Z7	95.7 L	97.5 L	95.9 L	96.9 L	96.5	-0.12	1.1	0.9	96.5	-0.12	1.1	0.9	4	MZ
8TU738	98.5	95.2	97.1	97.5	97.1	0.04	3.7	1.4	97.1	0.04	3.7	1.4	4	LD
94BDE3	98.3	97.4	98.1	95.4	97.3	0.10	2.7	1.3	97.3	0.10	2.7	1.3	4	LD
9T88D9	97.6	96.3	96.7	97.2	97.0	0.01	3.2	0.6	97.0	0.01	3.2	0.6	4	LD
CUT643	94.3	95.4	96.5	98.2	96.1	-0.24	3.9	1.7	96.1	-0.24	3.9	1.7	4	LD
DEFQL6	89.1	90.3 *	93.4	90.8 *	90.9	-1.69	3.2	1.8	90.9	-1.69	3.2	1.8	4	LD
E24T84	99.2	98.1	99.8	96.5	98.4	0.41	2.3	1.5	98.4	0.41	2.3	1.5	4	LD
EZMVE4	106.4	105.7 *	105.3 *	103.4 *	105.2	2.31 *	2.2	1.3	105.2	2.31 *	2.2	1.3	4	TH
F2XX23	97.4	97.8	99.1	97.2	97.9	0.26	2.4	0.8	97.9	0.26	2.4	0.8	4	LD
H4E4DU	108.4 *	97.6	97.0	97.8	100.2	0.91	2.7	5.5	100.2	0.91	2.7	5.5	4	LD
JYYUZQ	84.9 *	85.0 X	85.7 *	83.7 XH	84.8	-3.38 X	4.3	0.8	84.8	-3.38 X	4.3	0.8	4	MZ
K7UBPM	90.1	91.1	92.9	91.7	91.4	-1.53	2.8	1.2	91.4	-1.53	2.8	1.2	4	XX
K93M8N	97.2 L	96.9	96.9	96.8 L	97.0	0.01	2.8	0.2 L	97.0	0.01	2.8	0.2 L	4	EM
L84XMR	99.0 H	103.1 H	101.9	100.4	101.1	1.16	5.3	1.8	101.1	1.16	5.3	1.8	4	LX
LP7K4T	78.8 XH	101.9	104.7	76.7 XH	90.5	-1.79	8.5	14.8 H	90.5	-1.79	8.5	14.8 H	4	MB
LQFHJV	102.3	102.1	99.1	98.9	100.6	1.02	2.7	1.9	100.6	1.02	2.7	1.9	4	LG
MA689T	66.9 XH	66.5 XH	67.3 XH	67.2 XH	67.0	-8.35 X	9.2	0.3 L	67.0	-8.35 X	9.2	0.3 L	4	LD
MYTV2Q	103.0	103.6	101.0	100.1 H	101.9	1.39	4.3	1.6	101.9	1.39	4.3	1.6	4	TU
MZ2VCY	96.1	97.9	97.6	95.9	96.9	-0.02	3.7	1.0	96.9	-0.02	3.7	1.0	4	LC
NPZPXR	104.9 H	101.9	97.4	99.7 H	101.0	1.13	4.8	3.2	101.0	1.13	4.8	3.2	4	LD
NUDKNM	99.7	100.4	95.8	100.6	99.1	0.61	3.3	2.2	99.1	0.61	3.3	2.2	4	LD
NZWT2L	99.8	98.2	96.8	96.0	97.7	0.21	3.1	1.7	97.7	0.21	3.1	1.7	4	LD
PV39JM	98.7	100.1	100.5	99.2	99.6	0.74	2.4	0.8	99.6	0.74	2.4	0.8	4	LD
QDEF9P	94.0	95.9	91.3	93.2	93.6	-0.93	2.9	1.9	93.6	-0.93	2.9	1.9	4	LC
T2WLML	94.1	96.3	95.5	96.4	95.6	-0.38	3.7	1.1	95.6	-0.38	3.7	1.1	4	LD
TQBHEM	93.7	92.7	93.1	91.8	92.8	-1.14	3.7	0.8	92.8	-1.14	3.7	0.8	4	LC
UEHAFK	89.0 H	95.0 H	91.5 H	94.4	92.5	-1.24	5.5	2.8	92.5	-1.24	5.5	2.8	4	LD
UY3BBJ	90.6	92.5	92.1	92.5	91.9	-1.39	4.0	0.9	91.9	-1.39	4.0	0.9	4	LD
W2ZFUH	97.6	96.4	93.5	94.6	95.5	-0.39	3.2	1.8	95.5	-0.39	3.2	1.8	4	EM



Containerboard Interlaboratory Testing Program
 Analysis 215
Ring Crush, 42 lb Linerboard - 42N1
 TAPPI Official Test Method T822

Report #675
December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	
X8MPGK	95.4	95.2	95.3	95.3	95.3	-0.46	1.6	0.1 L	95.3	-0.46	1.6	0.1 L	4	MB
XE42W8	95.4	94.0	No DATA	No DATA	94.7	-0.62	4.8	1.0	94.7	-0.62	4.8	1.0	2	TU
XFXR3L	95.8 L	95.9 L	95.8 L	96.0 L	95.9	-0.30	0.6	0.1 L	95.9	-0.30	0.6	0.1 L	4	TU
YFWEVJ	99.5	101.2	98.1	100.2	99.7	0.78	2.8	1.3	99.7	0.78	2.8	1.3	4	LC
YHYEVG	99.2	97.9	100.9	101.4	99.9	0.81	3.5	1.6	99.9	0.81	3.5	1.6	4	XX
Z32MMK	102.1	100.7	99.4	101.7	101.0	1.12	2.5	1.2	101.0	1.12	2.5	1.2	4	LD

					Consensus (All Labs) Results			
Wk Mean	97.10	97.56	96.49	97.09	Month Mean	96.93	Grand Mean	96.93
Avg SDr	3.66	2.97	3.46	3.06	Avg SD	3.53	Avg SD	3.53
SD btwn Labs	5.15	3.75	4.40	3.25	SD btwn Labs	3.59	SD btwn Labs	3.59
Labs Incl	39	39	39	37	SD btwn Wks	3.21	SD btwn Wks	3.21
Labs Excl	2	2	1	3	Labs Incl	39	Labs Incl	39
Labs not Rcvd	0	0	1	1				

Key to Instrument Codes Reported by Participants

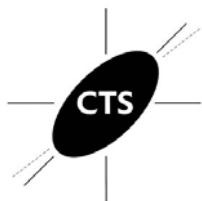
EM	Emerson 1200	LC	L&W Crush Tester 48
LD	L&W Crush Tester 248	LG	L&W 753
LX	L&W 506	LZ	L&W Crush Tester (model not specified)
MB	Messmer Buchel K440	MZ	Messmer Buchel (model not specified)
TH	TMI Compression Tester, Model 17-76	TU	TMI Universal Crush Tester (TMI K440)
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
Analysis 217
Ring Crush, 31 lb Linerboard - 31K1
 TAPPI Official Test Method T822

Report #675
December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	
2EDABC	77.5 H	77.7	77.0	75.2	76.8	1.33	3.9	1.1	77.4	1.43	3.5	0.8 L	12	MB
2N6FFB	76.4	79.5	64.5 XH	80.4 X	75.2	0.58	3.8	7.3 H	66.5	-2.21 *	6.1	11.7 H	12	LZ
3M4389	75.4	74.5	75.4	76.4	75.4	0.68	3.5	0.8	73.2	0.04	3.2	1.7	12	LC
4CVYBA	74.2 L	75.6 L	74.9 L	74.5 L	74.8	0.39	1.2	0.6	72.3	-0.26	1.2	3.5	8	MZ
6343ME	73.1	74.3 L	73.1	72.7	73.3	-0.29	2.1	0.7	73.3	0.08	2.0	0.7 L	12	LD
77PZYB	65.6 *	67.6 *	68.7 *	72.1	68.5	-2.48 *	2.7	2.7	69.5	-1.21	3.3	2.7	12	LC
8QA7Z7	73.9 L	74.6 L	72.3	76.1	74.2	0.13	1.3	1.6	73.9	0.28	1.3	3.7	12	MZ
8TU738	75.8	74.2	73.6	72.9	74.1	0.09	3.1	1.2	73.0	-0.02	3.4	1.8	12	LD
94BDE3	75.1	73.7	74.7	71.6	73.8	-0.07	3.0	1.6	73.8	0.24	2.8	1.0	11	LD
9T88D9	76.7	76.4	74.8	76.0	76.0	0.92	2.7	0.9	76.0	0.96	2.7	0.9 L	4	LD
CUT643	74.7	73.4	75.1	72.9	74.0	0.04	3.0	1.0	72.9	-0.07	3.2	1.8	12	LD
DEFQL6	66.5 *	71.7	71.9	73.1	70.8	-1.43	2.5	3.0	72.2	-0.29	2.7	2.6	8	LD
E24T84	73.2	72.8	73.2	75.2	73.6	-0.14	2.1	1.1	74.4	0.45	2.7	1.4	12	LD
EZMVE4	74.1	72.5	71.3	72.0	72.5	-0.66	2.0	1.2	74.6	0.52	2.5	1.8	12	TH
F2XX23	76.2	73.9	74.0	76.3	75.1	0.53	2.4	1.3	75.8	0.92	2.6	1.3	12	LD
H4E4DU	83.5 X	74.4	74.8	74.8	76.9	1.34	2.2	4.4 H	74.7	0.53	2.2	4.1	12	LD
JYYUZQ	65.7 *H	66.9 *H	67.3 *	66.2 XH	66.5	-3.39 X	6.1	0.7	66.8	-2.12 *	6.9	1.5	12	MZ
K7UBPM	68.7	70.7 H	69.2	69.8 *	69.6	-1.98 *	4.5	0.9	68.2	-1.66	6.0	1.9	8	LZ
K93M8N	74.4	76.7	76.7	74.5	75.6	0.74	3.2	1.3	74.5	0.46	2.9	1.3	12	EM
L84XMR	74.3	72.3	75.4	73.9	74.0	0.02	3.3	1.3	72.2	-0.30	5.0	7.4 H	12	LX
LP7K4T	56.8 XH	74.2	61.1 XH	59.2 XH	62.8	-5.07 X	10.0	7.8 H	66.6	-2.18 *	8.5	10.7 H	12	MB
LQFHJV	77.8	76.7	73.5	75.1	75.8	0.84	2.1	1.9	74.6	0.49	2.4	1.5	12	LG
MA689T	50.8 XH	50.9 XH	50.8 XH	50.4 XH	50.7	-10.60 X	8.7	0.2 L	53.1	-6.73 X	7.4	2.5	12	LD
MYTV2Q	80.2 *	80.8 *	77.2	77.5	78.9	2.28 *	3.8	1.8	78.9	1.96 *	3.1	1.5	12	TU
MZ2VCY	74.5	72.1	72.1	75.4	73.5	-0.18	3.1	1.7	72.8	-0.10	3.6	1.4	12	LC
NPZPXR	73.6	76.1	69.9	69.4 *	72.3	-0.77	4.0	3.2	70.4	-0.90	4.2	3.0	11	LD
NUDKNM	72.8	79.1	75.9	74.6	75.6	0.75	3.2	2.6	75.9	0.96	2.8	1.6	12	LD
NZWT2L	72.9	74.2	73.7	72.9	73.4	-0.24	2.5	0.6	73.6	0.17	2.4	1.3	12	LD
PV39JM	74.0	75.5	75.3	75.5	75.1	0.52	2.5	0.7	76.2	1.05	2.5	1.1	12	LD
QDEF9P	71.7	74.1	73.1	72.8	72.9	-0.45	2.7	1.0	72.2	-0.32	2.6	1.2	12	LC
T2WLML	73.7	72.7	71.4	73.4	72.8	-0.51	3.0	1.0	73.7	0.21	3.0	1.1	12	LD
TQBHEM	72.4	73.6	72.9	72.8	72.9	-0.47	3.2	0.5	72.8	-0.11	3.0	0.7 L	12	LC
UEHAFK	69.2	69.6	71.8	72.5	70.8	-1.45	3.4	1.6	72.3	-0.26	3.9	2.5	12	LD
UY3BBJ	71.2 L	71.7	71.7	72.1	71.7	-1.03	2.2	0.3	73.4	0.10	3.3	1.5	12	LC
W2ZFUH	71.2	71.8	70.8	69.1 *	70.7	-1.46	3.3	1.2	68.4	-1.57	3.5	2.9	12	EM



Containerboard Interlaboratory Testing Program
Analysis 217
Ring Crush, 31 lb Linerboard - 31K1
TAPPI Official Test Method T822

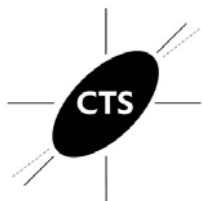
Report #675
December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	
X8MPGK	74.1	74.1	74.0	74.3	74.2	0.10	1.7	0.1 L	73.4	0.09	1.7	0.8 L	12	MB
XE42W8	73.8	71.4	No DATA	No DATA	72.6	-0.62	3.9	1.7	71.2	-0.66	3.4	1.8	6	TU
XFXR3L	74.2 L	74.1 L	74.2 L	74.2 L	74.2	0.11	0.5	0.1 L	74.0	0.31	0.5	0.2 L	12	TU
YFWEVJ	75.5	75.5	74.6	75.1	75.2	0.56	3.4	0.4	75.0	0.65	2.8	1.1	12	LC
YHYEVG	73.5	75.0	74.1	75.4 H	74.5	0.26	4.1	0.9	73.5	0.15	3.7	2.4	12	XX
Z32MMK	77.0	78.8	79.2 *	78.2 *	78.3	1.99 *	2.1	0.9	79.6	2.20 *	2.0	1.7	12	LD

					Consensus (All Labs) Results			
Wk Mean	73.54	74.10	73.48	73.90	Month Mean	73.93	Grand Mean	73.11
Avg SDr	2.97	3.30	3.00	2.74	Avg SD	2.95	Avg SD	3.55
SD btwn Labs	3.16	2.90	2.47	2.10	SD btwn Labs	2.19	SD btwn Labs	2.97
Labs Incl	38	40	37	36	SD btwn Wks	1.97	SD btwn Wks	3.33
Labs Excl	3	1	3	4	Labs Incl	38	Labs Incl	40
Labs not Rcvd	0	0	1	1				

Key to Instrument Codes Reported by Participants

EM	Emerson 1200	LC	L&W Crush Tester 48
LD	L&W Crush Tester 248	LG	L&W 753
LX	L&W 506	LZ	L&W Crush Tester (model not specified)
MB	Messmer Buchel K440	MZ	Messmer Buchel (model not specified)
TH	TMI Compression Tester, Model 17-76	TU	TMI Universal Crush Tester (TMI K440)
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program

Analysis 223

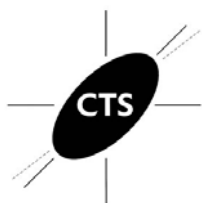
STFI, 42 lb Linerboard - 42N1

TAPPI Official Test Method T826

Report #675

December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
2EDABC	25.4	24.0	24.0	24.7	24.5	-0.07	1.7	0.7	24.5	-0.07	1.7	0.7	4	LA
2N6FFB_AL	24.3	22.2	23.4 L	23.1	23.3	-1.12	1.8	0.9	23.3	-1.12	1.8	0.9	4	AL
3M4389	24.8	25.6	25.2	25.3 H	25.2	0.52	2.5	0.4	25.2	0.52	2.5	0.4	4	LW
4CVYBA	23.2 L	21.9 L	20.9 *L	22.3 L	22.1	-2.09 *	0.9	0.9	22.1	-2.09 *	0.9	0.9	4	LZ
6343ME_AL	24.6	23.9 L	24.1	24.2	24.2	-0.33	1.4	0.3	24.2	-0.33	1.4	0.3	4	XX
6JT2Y8	23.5	22.8	23.6	23.9	23.4	-0.99	1.5	0.5	23.4	-0.99	1.5	0.5	4	LW
77PZYB	23.8	24.9	24.8	24.7	24.6	-0.05	1.5	0.5	24.6	-0.05	1.5	0.5	4	LA
7F8NP4	27.4 *	25.9	26.0	25.2 L	26.1	1.26	1.8	0.9	26.1	1.26	1.8	0.9	4	LA
7UT22D	26.1	26.3	No DATA	No DATA	26.2	1.30	1.8	0.2	26.2	1.30	1.8	0.2	2	LU
7UT22D_AL	25.8	25.2	No DATA	No DATA	25.5	0.77	2.3	0.4	25.5	0.77	2.3	0.4	2	AL
83Y7R9	24.6	23.4	23.2	24.9 H	24.0	-0.48	2.6	0.9	24.0	-0.48	2.6	0.9	4	XX
8QA7Z7	22.9 L	22.0 L	21.9 L	22.4 L	22.3	-1.89	0.6	0.4	22.3	-1.89	0.6	0.4	4	LZ
94BDE3	23.9	24.1	23.2	24.3	23.9	-0.63	1.8	0.5	23.9	-0.63	1.8	0.5	4	LA
9WA6N2	24.4	27.5	25.2	22.6	24.9	0.27	1.5	2.0 H	24.9	0.27	1.5	2.0 H	4	LA
AUEW33	24.5 H	22.4	25.6	23.6	24.0	-0.47	2.4	1.3	24.0	-0.47	2.4	1.3	4	LH
BTHQBB	23.4	No DATA	24.9	No DATA	24.1	-0.42	1.7	1.1	24.1	-0.42	1.7	1.1	2	LU
DEFQL6	36.5 X	36.0 X	37.1 X	38.1 XH	36.9	10.18 X	2.1	0.9	36.9	10.18 X	2.1	0.9	4	TT
E24T84	26.2	25.4	23.7	24.7	25.0	0.32	1.8	1.1	25.0	0.32	1.8	1.1	4	LA
EYU69P_AL	26.3 L	26.7 L	27.1 L	26.5 L	26.7	1.68	0.0	0.3	26.7	1.68	0.0	0.3	4	AL
F2XX23	23.9	23.5	23.5	24.7	23.9	-0.61	1.7	0.6	23.9	-0.61	1.7	0.6	4	LY
GBZTHX_AL	25.2	24.5	25.8	24.8 L	25.1	0.39	1.7	0.5	25.1	0.39	1.7	0.5	4	AL
GG6EMV_AL	25.4	24.8	24.8	23.7	24.7	0.05	1.9	0.7	24.7	0.05	1.9	0.7	4	AL
GJCWLQ	25.6	25.0 L	25.8	25.2	25.4	0.65	1.3	0.4	25.4	0.65	1.3	0.4	4	LH
H4E4DU	25.9 H	22.2	22.5	23.2	23.5	-0.95	2.0	1.7 H	23.5	-0.95	2.0	1.7 H	4	LZ
H4E4DU_AL	46.1 XL	44.1 XL	41.7 XL	43.3 XL	43.8	15.86 X	0.0	1.8 H	43.8	15.86 X	0.0	1.8 H	4	AL
JFQQ2L_AL	24.2	26.8	25.6	25.2	25.4	0.68	2.0	1.1	25.4	0.68	2.0	1.1	4	AL
JYYUZQ	25.8	26.2	26.0 H	26.1	26.0	1.16	2.6	0.1	26.0	1.16	2.6	0.1	4	XX
K7UBPM	28.0 *	26.9	26.1 L	27.9 *	27.2	2.15 *	1.5	0.9	27.2	2.15 *	1.5	0.9	4	LZ
KDUUPW	22.0 *	24.6	23.6	24.3	23.6	-0.80	2.2	1.2	23.6	-0.80	2.2	1.2	4	LH
L84XMR	26.8	27.7 *H	26.3	27.1 *	27.0	1.96 *	2.5	0.6	27.0	1.96 *	2.5	0.6	4	LZ
LP3ZFP	24.8	26.8	25.1	25.7	25.6	0.81	2.0	0.9	25.6	0.81	2.0	0.9	4	LH
LP7K4T	24.5	24.7	26.4	26.0	25.4	0.65	1.9	1.0	25.4	0.65	1.9	1.0	4	LA
LQFHJV	25.9	24.9	25.4	26.0	25.5	0.77	1.9	0.5	25.5	0.77	1.9	0.5	4	BK
MA689T	23.4	22.9	23.2	22.9	23.1	-1.25	1.7	0.2	23.1	-1.25	1.7	0.2	4	LY
MA689T_AL	24.5 H	23.9	24.1 H	23.1	23.9	-0.59	2.5	0.6	23.9	-0.59	2.5	0.6	4	AL



Containerboard Interlaboratory Testing Program

Analysis 223

STFI, 42 lb Linerboard - 42N1

TAPPI Official Test Method T826

Report #675

December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
MNPMBT	21.7 * L	No DATA	No DATA	No DATA	21.7	-2.41 *	0.6	0.0	21.7	-2.41 *	0.6	0.0	1	LH
MYTV2Q	25.9	26.1	24.4	24.1	25.1	0.42	1.4	1.0	25.1	0.42	1.4	1.0	4	LA
MZ2VCY	25.5 H	No DATA	26.4	24.7 L	25.5	0.76	2.0	0.9	25.5	0.76	2.0	0.9	3	LU
NLGUWK	25.5	25.0	24.7	24.6	25.0	0.28	1.9	0.4	25.0	0.28	1.9	0.4	4	LU
NUDKNM_AI	24.7	23.8	23.3	23.2	23.7	-0.71	2.2	0.7	23.7	-0.71	2.2	0.7	4	AL
NZWT2L	23.1	23.2	22.9	23.8	23.2	-1.14	1.6	0.4	23.2	-1.14	1.6	0.4	4	LY
PV39JM_AL	25.2	23.5	25.5 L	25.2	24.8	0.18	1.2	0.9	24.8	0.18	1.2	0.9	4	AL
PX72DL_AL	24.0	24.3	25.7	25.3	24.8	0.17	1.7	0.8	24.8	0.17	1.7	0.8	4	XX
PY3KFM	24.4	25.1	24.8	25.3	24.9	0.22	1.8	0.4	24.9	0.22	1.8	0.4	4	LY
QDEF9P	22.2 *	22.5	22.0	21.9 *	22.1	-2.05 *	1.7	0.3	22.1	-2.05 *	1.7	0.3	4	LZ
QM2KWF	25.5	25.6	24.8	25.4	25.3	0.59	2.0	0.4	25.3	0.59	2.0	0.4	4	LH
QVWMYR_A	26.9	25.0	24.5	26.6	25.7	0.93	1.9	1.2	25.7	0.93	1.9	1.2	4	AL
RU3WTD_AL	29.7 X	29.7 X	28.4 *	30.1 X	29.5	4.01 X	2.2	0.7	29.5	4.01 X	2.2	0.7	4	AL
T2WLML_AL	23.7	24.3	21.7 *	24.0	23.4	-0.98	1.7	1.2	23.4	-0.98	1.7	1.2	4	AL
TVQTRQ	24.7	24.8	24.8	24.8	24.8	0.12	1.6	0.0 L	24.8	0.12	1.6	0.0 L	4	XX
UEHAFK	25.3	25.1 H	24.9	24.0	24.8	0.16	2.5	0.6	24.8	0.16	2.5	0.6	4	LA
UMAW3A	23.0	22.4 H	23.7	23.4	23.1	-1.22	2.5	0.5	23.1	-1.22	2.5	0.5	4	LH
UY3BBJ	24.2	23.9	24.1	24.3 L	24.1	-0.41	1.5	0.1	24.1	-0.41	1.5	0.1	4	LU
V74M7G	26.7	25.7	No DATA	No DATA	26.2	1.31	1.9	0.7	26.2	1.31	1.9	0.7	2	LU
VX7Y6J	24.5 L	25.5 L	24.8 L	24.7 L	24.9	0.22	0.0	0.4	24.9	0.22	0.0	0.4	4	LH
WDDFQB	24.7	24.0 L	24.2	24.5	24.3	-0.25	1.3	0.3	24.3	-0.25	1.3	0.3	4	LZ
WZTZMC_AI	24.5	24.3	24.1	24.9	24.4	-0.14	1.4	0.3	24.4	-0.14	1.4	0.3	4	AL
XE42W8	24.7	24.5	No DATA	No DATA	24.6	-0.01	1.9	0.1	24.6	-0.01	1.9	0.1	2	TT
XFXR3L	25.3	25.0	25.1	25.3	25.2	0.47	2.0	0.2	25.2	0.47	2.0	0.2	4	XX
YFWEVJ	23.9	23.3	23.6	23.8	23.6	-0.82	1.8	0.3	23.6	-0.82	1.8	0.3	4	LU
Z32MMK	25.2	27.9 *	27.1	26.3	26.6	1.67	1.9	1.2	26.6	1.67	1.9	1.2	4	LH

Consensus (All Labs) Results									
Wk Mean	24.75	24.63	24.56	24.58	Month Mean	24.61	Grand Mean	24.61	
Avg SDr	1.96	1.84	1.79	1.89	Avg SD	1.86	Avg SD	1.86	
SD btwn Labs	1.28	1.49	1.45	1.24	SD btwn Labs	1.21	SD btwn Labs	1.21	
Labs Incl	58	55	54	52	SD btwn Wks	0.77	SD btwn Wks	0.77	
Labs Excl	3	3	2	3	Labs Incl	58	Labs Incl	58	
Labs not Rcvd	0	3	5	6					

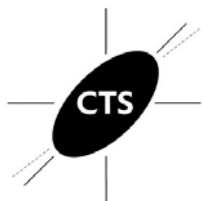


Containerboard Interlaboratory Testing Program
Analysis 223
STFI, 42 lb Linerboard - 42N1
TAPPI Official Test Method T826

Report #675
December 2025

Key to Instrument Codes Reported by Participants

AL	L & W Autoline 400	BK	Buchel Strip Compression Tester BK-155
LA	L&W Autoline (223 Enrollment)	LH	L&W 282
LU	L&W 52 without moisture correction(was 53)	LW	L&W 53 with moisture correction (was 53M)
LY	L&W 152 without moisture correction	LZ	L&W (model not specified)
TT	TMI Short Span Compression, 17-34 (MB K455)	XX	Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program

Analysis 225

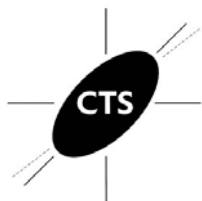
STFI, 31 lb Linerboard - 31K1

TAPPI Official Test Method T826

Report #675

December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results						Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks		
2EDABC	20.0	20.9	20.7	21.1 L	20.7	0.16	1.3	0.5	22.6	2.97 X	1.6	2.6 H	12	LA	
2N6FFB_AL	20.5	21.1	21.0	19.8	20.6	0.06	1.3	0.6	20.1	-0.59	1.3	0.7	12	XX	
3M4389	20.8	22.4	23.0 *H	20.8	21.7	1.54	1.8	1.1	21.5	1.29	1.6	0.7	12	LW	
4CVYBA	19.5 L	20.2 L	20.1	20.0 L	19.9	-0.84	0.6	0.3	19.8	-1.07	0.7	1.1	12	LZ	
6343ME_AL	19.6	20.2 L	20.6	20.4	20.2	-0.50	1.1	0.4	20.0	-0.75	1.3	0.4	12	XX	
6JT2Y8	19.7	19.9	19.0 L	19.5	19.5	-1.36	1.0	0.4	19.6	-1.34	1.1	0.3	12	LW	
77PZYB	20.4	21.5	20.4	19.9	20.6	-0.02	1.4	0.7	20.9	0.52	1.4	0.5	12	LA	
7F8NP4	21.3	19.9	21.4	21.2	20.9	0.50	1.2	0.7	15.7	-6.92 X	1.4	8.9 H	12	XX	
7UT22D	21.2	21.6	No DATA	No DATA	21.4	1.04	1.5	0.3	20.7	0.19	1.4	0.8	7	LU	
7UT22D_AL	23.1 X	21.9	No DATA	No DATA	22.5	2.56 *	1.1	0.8	22.1	2.20 *	1.4	0.6	7	AL	
83Y7R9	20.1	19.1	19.6	20.0	19.7	-1.14	1.7	0.5	20.0	-0.86	1.6	0.5	12	XX	
8QA7Z7	19.4 L	20.2 L	19.9 L	19.6 L	19.8	-1.04	0.7	0.4	19.9	-1.00	0.8	0.8	12	LZ	
94BDE3	21.3	21.1	19.0	20.1	20.4	-0.24	1.2	1.0	20.4	-0.26	1.2	0.9	12	LW	
9WA6N2	20.5	20.0	19.7	20.4	20.2	-0.54	1.2	0.4	20.4	-0.20	1.3	0.6	8	LA	
AUEW33	20.7	20.6	20.3	20.7	20.6	-0.01	1.4	0.2	20.5	-0.11	1.4	0.2 L	8	LH	
BTHQBB	20.6	No DATA	20.9 L	No DATA	20.7	0.23	1.1	0.2	20.7	0.16	1.4	0.3	8	LU	
DEFQL6	28.4 XH	26.3 X	28.8 X	27.5 X	27.7	9.49 X	1.6	1.1	30.8	14.59 X	1.6	3.3 H	8	TT	
E24T84	20.4	20.3	20.2	20.2	20.3	-0.38	1.5	0.1 L	20.7	0.17	1.5	0.6	12	LA	
EYU69P_AL	24.1 XL	22.6 L	24.7 XL	23.3 XL	23.7	4.11 X	0.0	0.9	23.1	3.62 X	0.0	1.2	8	AL	
F2XX23	20.3	20.3	19.5	20.2	20.0	-0.68	1.4	0.4	20.3	-0.44	1.3	0.4	12	LY	
GBZTHX_AL	20.6	20.3	20.7	20.5	20.5	-0.05	1.1	0.2	19.8	-1.08	1.2	0.6	12	XX	
GG6EMV_AL	22.1	23.1 *H	21.6	21.1	22.0	1.87	1.6	0.9	21.3	1.00	1.5	0.9	12	AL	
GJCWLQ	20.0	20.4	20.9	20.7	20.5	-0.07	1.3	0.4	20.6	0.13	1.2	0.3	12	LH	
H4E4DU	22.4 *	19.4	19.5 H	20.3	20.4	-0.23	1.5	1.4 H	19.8	-1.08	1.4	2.0 H	12	LZ	
H4E4DU_AL	38.2 XL	33.4 XL	31.3 XL	34.3 XL	34.3	18.17 X	0.0	2.9 H	34.1	19.32 X	0.0	2.2 H	12	AL	
JFQQ2L_AL	24.0 X	23.1 *	23.4 *	23.2 XH	23.4	3.78 X	1.8	0.4	23.1	3.69 X	1.8	0.6	8	AL	
JYYUZQ	20.8	21.3	21.6	20.6	21.1	0.69	1.7	0.5	21.1	0.81	1.6	0.5	12	TT	
K7UBPM	21.0 L	21.8 L	20.9 L	20.5	21.1	0.65	0.7	0.6	20.8	0.32	1.0	0.5	8	XX	
KDUUPW	20.5	19.2	20.6	20.2 H	20.1	-0.59	1.7	0.6	20.5	-0.03	1.7	0.9	12	LH	
L84XMR	21.9	21.4	21.8 H	23.1 X	22.0	1.95 *	1.7	0.7	22.2	2.29 *	1.6	5.1 H	12	LZ	
LP3ZFP	21.1	20.2	20.8	21.2	20.8	0.32	1.5	0.4	21.3	1.07	1.6	0.5	12	LH	
LP7K4T	20.5	19.8	20.0	20.7	20.2	-0.43	1.6	0.4	20.2	-0.58	1.5	0.6	12	LA	
LQFHJV	20.3	20.6	21.4	21.1	20.8	0.37	1.4	0.5	20.1	-0.63	1.4	0.7	12	LW	
MA689T	19.6	19.0	19.4	19.9	19.5	-1.41	1.6	0.4	20.0	-0.81	1.5	0.5	12	LU	
MA689T_AL	19.9	19.6	20.1	19.7	19.8	-0.98	1.5	0.2	20.2	-0.52	1.6	0.4	12	AL	



Containerboard Interlaboratory Testing Program
Analysis 225
STFI, 31 lb Linerboard - 31K1
TAPPI Official Test Method T826

Report #675
December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
MNPMBT	18.9	No DATA	No DATA	No DATA	18.9	-2.20 *	1.2	0.0	19.6	-1.32	0.7	0.5	9	LH
MYTV2Q	22.6 *	23.0 *	20.6	21.3	21.9	1.74	1.4	1.1	21.8	1.79	1.1	0.7	12	LA
MZ2VCY	20.2 L	No DATA	20.9	19.9	20.3	-0.30	1.2	0.5	20.7	0.14	1.3	0.4	8	LU
NLGUWK	20.4	21.4	21.0	20.9	20.9	0.48	1.4	0.4	20.5	-0.10	1.5	0.8	12	LU
NUDKNM_AI	20.9	20.4	19.5	20.6	20.3	-0.29	1.5	0.6	20.2	-0.48	1.5	0.5	12	AL
NZWT2L	19.9	19.4	19.6	19.6	19.6	-1.27	1.4	0.2	19.6	-1.35	1.4	0.3	12	LY
PV39JM_AL	20.1	20.2	21.5	22.3 *	21.0	0.60	1.3	1.1	20.6	0.06	1.3	0.8	12	AL
PX72DL_AL	20.9	21.7	22.8 *	20.6	21.5	1.21	1.3	1.0	21.5	1.29	1.3	1.3	12	XX
PY3KFM	20.8 L	21.6	21.4	21.4	21.3	0.97	1.1	0.4	20.9	0.52	1.2	0.6	12	LU
QDEF9P	18.8 *	19.1	18.9	18.8 *	18.9	-2.19 *	1.4	0.1	18.7	-2.62 *	1.4	0.4	12	LZ
QM2KWF	20.8	20.5	21.1	21.1	20.9	0.41	1.2	0.3	21.0	0.65	1.3	0.3	12	LH
QVWMYR_A	23.5 XH	22.7 *	23.3 *	22.4 *H	23.0	3.18 X	1.7	0.5	21.9	1.94 *	1.5	1.2	12	AL
RU3WTD_AL	26.5 XH	26.6 XH	26.3 X	26.6 X	26.5	7.86 X	1.9	0.1	25.9	7.64 X	1.8	0.6	12	AL
T2WLML_AL	19.5 L	20.3	19.6	19.8	19.8	-1.01	1.2	0.4	20.3	-0.44	1.6	0.6	12	AL
TVQTRQ	21.2 H	20.4	20.8	21.0	20.9	0.39	1.7	0.4	20.3	-0.35	1.7	0.7	12	XX
UEHAFK	19.7	20.8	19.9	19.6	20.0	-0.76	1.5	0.5	20.4	-0.29	1.7	0.7	12	LA
UMAW3A	18.4 *	19.7 H	19.9 H	20.2	19.6	-1.33	1.9	0.8	19.7	-1.27	2.1	0.7	8	LH
UY3BBJ	20.6	20.4	20.6	20.8	20.6	0.07	1.3	0.2	20.8	0.35	1.4	1.0	12	LW
V74M7G	22.0	21.2	No DATA	No DATA	21.6	1.37	1.9	0.5	21.9	1.88	1.7	0.5	7	LU
VX7Y6J	20.9 L	20.6 L	20.3 L	21.0 L	20.7	0.20	0.0	0.3	20.8	0.39	0.0	0.4	12	LH
WDDFQB	20.6	20.9	20.4	20.4	20.5	-0.03	1.1	0.2	20.6	0.04	1.1	0.3 L	12	XX
WZTZMC_AI	21.2	21.4	21.4	20.8	21.2	0.80	1.2	0.3	21.0	0.69	1.2	0.4	12	AL
XE42W8	20.7	20.3 H	No DATA	No DATA	20.5	-0.09	1.8	0.3	20.1	-0.60	1.5	0.5	6	TT
XFXR3L	20.0	20.2	20.0	20.1	20.1	-0.65	1.1	0.1 L	20.3	-0.33	1.1	0.2 L	12	XX
YFWEVJ	20.3	19.8	20.3	20.2	20.1	-0.60	1.4	0.2	20.2	-0.44	1.3	0.4	12	LU
Z32MMK	21.3	21.3	20.6	22.3 *	21.4	1.05	1.3	0.7	21.3	1.05	1.4	0.5	12	LH

Consensus (All Labs) Results									
Wk Mean	20.51	20.73	20.62	20.52	Month Mean	20.56	Grand Mean	20.56	
Avg SDr	1.31	1.43	1.43	1.37	Avg SD	1.38	Avg SD	1.40	
SD btwn Labs	0.84	1.04	1.02	0.72	SD btwn Labs	0.76	SD btwn Labs	0.70	
Labs Inclcd	54	55	52	49	SD btwn Wks	0.57	SD btwn Wks	0.97	
Labs Exclcd	7	3	4	6	Labs Inclcd	55	Labs Inclcd	54	
Labs not Rcvd	0	3	5	6					



Containerboard Interlaboratory Testing Program
Analysis 225
STFI, 31 lb Linerboard - 31K1
TAPPI Official Test Method T826

Report #675
December 2025

Key to Instrument Codes Reported by Participants

AL	L & W Autoline 400	LA	L&W Autoline (223 Enrollment)
LH	L&W 282	LU	L&W 52 without moisture correction (was 53)
LW	L&W 53 with moisture correction (was 53M)	LY	L&W 152 (was 52M)
LZ	L&W (model not specified)	TT	TMI Short Span Compression, 17-34 (MB K455)
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
 Analysis 228
Roughness - Stylus Method, 42 lb Linerboard - 42N
 TAPPI Official Test Method T575

Report #675
December 2025

WebCode	Monthly Results				Cumulative Results				Inst
	Mean	CPV	SD		Mean	CPV	SD Months	Months	
2EDABC	158.2	0.46	25.14		158.2	0.46	0.00	1	LA
2N6FFB_AL	119.7	-1.84	17.54		119.7	-1.84	0.00	1	AL
3M4389	128.1	-1.34	15.76		128.1	-1.34	0.00	1	XX
7F8NP4	144.0	-0.39	12.17		144.0	-0.39	0.00	1	LA
7UT22D_AL	135.2	-0.91	16.07		135.2	-0.91	0.00	1	AL
94BDE3	155.1	0.28	18.03		155.1	0.28	0.00	1	LA
9WA6N2	159.9	0.57	10.29	L	159.9	0.57	0.00	1	LA
AKBQ2A	177.2	1.60	24.64		177.2	1.60	0.00	1	LS
BTHQBB	172.2	1.30	22.61		172.2	1.30	0.00	1	EV
F2XX23	156.8	0.38	15.55		156.8	0.38	0.00	1	EV
GBZTHX_AL	133.6	-1.01	16.75		133.6	-1.01	0.00	1	AL
GG6EMV_AL	148.4	-0.12	15.29		148.4	-0.12	0.00	1	AL
H4E4DU	0.3	-9.00	0.01	L	0.3	-9.00	X	0.00	LA
H4E4DU_AL	179.0	1.71	88.98	H	179.0	1.71	0.00	1	AL
JFQQ2L_AL	179.3	1.73	28.56		179.3	1.73	0.00	1	AL
JYYUZQ	158.7	0.49	24.65		158.7	0.49	0.00	1	EV
KDUUPW	126.2	-1.45	14.67		126.2	-1.45	0.00	1	LS
LP3ZFP	156.5	0.36	17.74		156.5	0.36	0.00	1	EV
LP7K4T	167.0	0.99	23.87		167.0	0.99	0.00	1	LA
MA689T	151.2	0.04	12.33		151.2	0.04	0.00	1	XX
MA689T_AL	158.8	0.50	18.15		158.8	0.50	0.00	1	AL
MNPMBT	169.9	1.17	10.70	L	169.9	1.17	0.00	1	EV
MYTV2Q	156.3	0.35	15.44		156.3	0.35	0.00	1	LA
NUDKNM	134.2	-0.97	14.42		134.2	-0.97	0.00	1	LS
NUDKNM_AL	148.8	-0.10	25.72		148.8	-0.10	0.00	1	AL
NZWT2L	152.0	0.09	21.54		152.0	0.09	0.00	1	LS
PX72DL_AL	135.1	-0.92	22.96		135.1	-0.92	0.00	1	AL
QDEF9P	155.4	0.29	15.83		155.4	0.29	0.00	1	EV
QVWMYR_AL	136.7	-0.82	16.88		136.7	-0.82	0.00	1	AL
RU3WTD_AL	78.4	-4.32	7.65	L	78.4	-4.32	X	0.00	AL
UEHAFK	125.8	-1.48	13.93		125.8	-1.48	0.00	1	LA
WZTZMC_AL	134.6	-0.95	11.57		134.6	-0.95	0.00	1	AL
Consensus (All Labs) Results									
Month Mean			150.47	Grand Mean			150.47		
Avg SD			24.43	Avg SD Months			0.00		
SD btwn Labs			16.69	SD btwn Labs			16.69		
Labs Incl			30	Labs Incl			30		

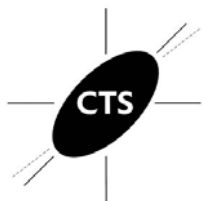


Containerboard Interlaboratory Testing Program
Analysis 228
Roughness - Stylus Method, 42 lb Linerboard - 42N1
TAPPI Official Test Method T575

Report #675
December 2025

Key to Instrument Codes Reported by Participants

AL	L & W Autoline 400	EV	Emveco Microgage Model 210-R
LA	L&W Autoline (228 Enrollment)	LS	L&W 263
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
 Analysis 229
Roughness - Sheffield Method, 42 lb Linerboard - 42N1
 TAPPI Official Test Method T538

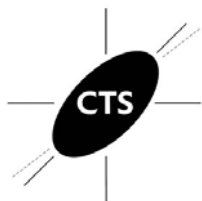
Report #675
December 2025

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst
6343ME_AL	376.9	0.26	7.43	376.9	0.26	0.00	1	XX
8TU738_AL	375.8	0.18	14.43	375.8	0.18	0.00	1	AL
GG6EMV_AL	355.8	-1.40	4.13 L	355.8	-1.40	0.00	1	AL
H4E4DU_AL	365.9	-0.60	11.70	365.9	-0.60	0.00	1	AL
JFQQ2L_AL	379.7	0.48	10.24	379.7	0.48	0.00	1	AL
JYYUZQ	383.3	0.76	10.94	383.3	0.76	0.00	1	XX
MA689T_AL	375.8	0.18	10.05	375.8	0.18	0.00	1	AL
NUDKNM_AL	401.2	2.18 *	8.54	401.2	2.18 *	0.00	1	AL
NZWT2L	369.4	-0.33	8.67	369.4	-0.33	0.00	1	XX
PV39JM_AL	375.8	0.18	4.87	375.8	0.18	0.00	1	AL
PX72DL_AL	373.2	-0.03	8.47	373.2	-0.03	0.00	1	XX
QVWMYR_AL	363.0	-0.83	9.40	363.0	-0.83	0.00	1	AL
T2WLML	373.4	-0.01	10.84	373.4	-0.01	0.00	1	PP
W2ZFUH	347.7	-2.03 *	6.42	347.7	-2.03 *	0.00	1	TS
YFWEVJ	386.5	1.02	10.81	386.5	1.02	0.00	1	XX

Consensus (All Labs) Results			
Month Mean	373.56	Grand Mean	373.56
Avg SD	9.49	Avg SD Months	0.00
SD btwn Labs	12.71	SD btwn Labs	12.71
Labs Incl	15	Labs Incl	15

Key to Instrument Codes Reported by Participants

AL	L & W Autoline 400	PP	Technidyne Profile/Plus
TS	TMI Monitor/Smoothness	XX	Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program

Analysis 231

Report #675

December 2025

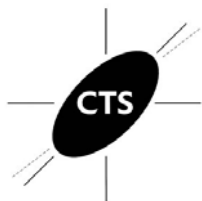
Internal Bond, 42 lb Linerboard - 42N

TAPPI Official Test Method T569

WebCode	Monthly Results				Cumulative Results				Inst
	Mean	CPV	SD		Mean	CPV	SD Months	Months	
2N6FFB	102.8	-1.35	14.31		102.8	-1.35	0.00	1	TM
6343ME	139.4	0.71	3.51		139.4	0.71	0.00	1	HY
77PZYB	142.0	0.85	4.64		142.0	0.85	0.00	1	TM
8TU738	143.2	0.92	1.00	L	143.2	0.92	0.00	1	TM
94BDE3	151.6	1.40	17.74		151.6	1.40	0.00	1	HY
AKBQ2A	133.2	0.36	5.54		133.2	0.36	0.00	1	HY
BT3JX7	125.8	-0.06	6.34		125.8	-0.06	0.00	1	HZ
BTHQBB	129.8	0.17	5.26		129.8	0.17	0.00	1	TM
E24T84	128.0	0.07	6.63		128.0	0.07	0.00	1	HZ
F2XX23	134.2	0.41	2.95	L	134.2	0.41	0.00	1	HZ
GG6EMV	118.8	-0.45	4.38		118.8	-0.45	0.00	1	TM
JFQQ2L	101.8	-1.41	12.54		101.8	-1.41	0.00	1	TM
KCPZGR	106.8	-1.13	4.02		106.8	-1.13	0.00	1	TM
LP3ZFP	135.8	0.51	6.02		135.8	0.51	0.00	1	TM
MA689T	120.2	-0.37	3.27		120.2	-0.37	0.00	1	TM
NUDKNM	102.6	-1.37	6.00		102.6	-1.37	0.00	1	TM
PV39JM	110.6	-0.91	55.12	H	110.6	-0.91	0.00	1	LZ
QQZWRF	154.1	1.54	3.65		154.1	1.54	0.00	1	TM
T2WLML	145.8	1.07	9.04		145.8	1.07	0.00	1	HY
UMAW3A	126.0	-0.05	3.54		126.0	-0.05	0.00	1	HY
XE42W8	92.8	-1.92	3.28	*	92.8	-1.92	0.00	1	TM
YFWEVJ	145.1	1.03	7.55		145.1	1.03	0.00	1	HY
Consensus (All Labs) Results									
Month Mean			126.84	Grand Mean			126.84		
Avg SD			13.81	Avg SD Months			0.00		
SD btwn Labs			17.75	SD btwn Labs			17.75		
Labs Incd			22	Labs Incd			22		

Consensus By Method

Test Method	Group Mean	SD btwn Group	Difference from Grand Mean	Labs Included
Scott Bond Type	124.35	17.76	2.48	15
Modified Scott Bond Mechanics	137.62	18.37	10.78	4



Containerboard Interlaboratory Testing Program

Analysis 231

Internal Bond, 42 lb Linerboard - 42N

TAPPI Official Test Method T569

Report #675

December 2025

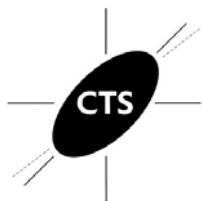
Key to Instrument Codes Reported by Participants

HY Huygen Digitized Scott Internal Bond Tester

LZ L&W (model not specified)

HZ Huygen Internal Bond Tester with AccuPress

TM TMI Monitor/Internal Bond Tester



Containerboard Interlaboratory Testing Program
 Analysis 234
COF Inclined Plane (Slide Angle), 42 lb Linerboard - 42N
 TAPPI Official Test Method T815

Report #675
December 2025

WebCode	Monthly Results				Cumulative Results			
	Mean	CPV	SD		Mean	CPV	SD Months	Months
2EDABC	23.6	-0.63	1.14		23.6	-0.63	0.00	1
2N6FFB	26.3	0.35	2.78		26.3	0.35	0.00	1
3M4389	27.4	0.73	1.82		27.4	0.73	0.00	1
6343ME	27.8	0.87	4.97	H	27.8	0.87	0.00	1
6QWV8G	22.6	-0.99	1.95		22.6	-0.99	0.00	1
94BDE3	24.8	-0.20	3.27		24.8	-0.20	0.00	1
9WA6N2	24.0	-0.49	0.79		24.0	-0.49	0.00	1
AKBQ2A	37.6	4.38	1.82	X	37.6	4.38	0.00	1
AUEW33	23.2	-0.77	2.28		23.2	-0.77	0.00	1
BTHQBB	28.2	1.02	1.48		28.2	1.02	0.00	1
EYU69P	25.2	-0.07	1.20		25.2	-0.07	0.00	1
F2XX23	26.6	0.44	2.70		26.6	0.44	0.00	1
GBZTHX	30.6	1.88	1.52		30.6	1.88	0.00	1
GG6EMV	29.0	1.30	2.35		29.0	1.30	0.00	1
JFQQ2L	15.4	-3.57	3.21	X	15.4	-3.57	0.00	1
KDUUPW	21.0	-1.56	1.58		21.0	-1.56	0.00	1
LP3ZFP	26.0	0.23	1.73		26.0	0.23	0.00	1
MA689T	22.0	-1.20	2.35		22.0	-1.20	0.00	1
NUDKNM	26.8	0.52	1.10		26.8	0.52	0.00	1
NZWT2L	30.8	1.95	1.57	*	30.8	1.95	0.00	1
PV39JM	23.8	-0.56	2.41		23.8	-0.56	0.00	1
QDEF9P	27.6	0.80	1.31		27.6	0.80	0.00	1
QVWMYR	24.9	-0.16	3.01		24.9	-0.16	0.00	1
RU3WTD	23.2	-0.77	1.40		23.2	-0.77	0.00	1
T2WLML	26.2	0.30	2.28		26.2	0.30	0.00	1
UMAW3A	19.2	-2.21	2.68	*	19.2	-2.21	0.00	1
VX7Y6J	23.8	-0.56	1.92		23.8	-0.56	0.00	1
YFWEVJ	24.8	-0.21	3.92		24.8	-0.21	0.00	1
Consensus (All Labs) Results								
Month Mean			25.36	Grand Mean			25.36	
Avg SD			2.33	Avg SD Months			0.00	
SD btwn Labs			2.79	SD btwn Labs			2.79	
Labs Incl			26	Labs Incl			26	

Key to Instrument Codes Reported by Participants

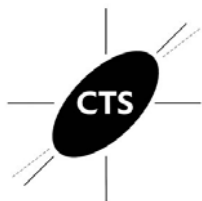
ZZ Instruments No Longer Tracked



Containerboard Interlaboratory Testing Program
 Analysis 237
Air Resistance, 42 lb Linerboard - 42N
 TAPPI Official Test Method T460

Report #675
December 2025

WebCode	Monthly Results				Cumulative Results				Inst
	Mean	CPV	SD		Mean	CPV	SD Months	Months	
2EDABC	41.5	-1.02	1.56		41.5	-1.02	0.00	1	LA
2N6FFB_AL	39.7	-1.87	2.65		39.7	-1.87	0.00	1	AL
3M4389	43.2	-0.19	1.83		43.2	-0.19	0.00	1	LP
6343ME	46.7	1.52	5.19	H	46.7	1.52	0.00	1	TP
6343ME_AL	42.3	-0.63	2.17		42.3	-0.63	0.00	1	XX
6QWV8G_AL	41.9	-0.80	2.71		41.9	-0.80	0.00	1	AL
7F8NP4	46.9	1.63	2.66		46.9	1.63	0.00	1	LA
7UT22D_AL	42.5	-0.52	1.58		42.5	-0.52	0.00	1	AL
8TU738_AL	39.4	-2.02 *	2.70		39.4	-2.02 *	0.00	1	AL
94BDE3	47.5	1.92	2.80		47.5	1.92	0.00	1	LP
9WA6N2	43.7	0.04	2.94		43.7	0.04	0.00	1	LA
AKBQ2A	44.5	0.44	3.05		44.5	0.44	0.00	1	LP
AUEW33	44.5	0.43	2.13		44.5	0.43	0.00	1	LP
BT3JX7	43.1	-0.22	3.72		43.1	-0.22	0.00	1	LP
BTHQBB_AL	42.4	-0.59	2.85		42.4	-0.59	0.00	1	AL
DPDUQY	44.2	0.29	0.72	L	44.2	0.29	0.00	1	LP
E48NQ7	44.3	0.33	2.28		44.3	0.33	0.00	1	LP
EYU69P_AL	34.4	-4.46 X	1.27		34.4	-4.46 X	0.00	1	XX
F2XX23	45.3	0.82	1.41		45.3	0.82	0.00	1	LP
GBZTHX_AL	39.0	-2.25 *	2.05		39.0	-2.25 *	0.00	1	AL
GG6EMV_AL	40.5	-1.52	2.47		40.5	-1.52	0.00	1	AL
H4E4DU_AL	42.6	-0.45	2.06		42.6	-0.45	0.00	1	AL
JFQQ2L_AL	43.3	-0.13	1.56		43.3	-0.13	0.00	1	AL
KDUUPW	42.4	-0.58	4.14		42.4	-0.58	0.00	1	TD
LP3ZFP	43.4	-0.09	1.46		43.4	-0.09	0.00	1	LP
LP7K4T	44.2	0.31	2.42		44.2	0.31	0.00	1	LA
MA689T	45.9	1.16	3.21		45.9	1.16	0.00	1	LP
MA689T_AL	45.4	0.91	2.74		45.4	0.91	0.00	1	AL
MYTV2Q	47.4	1.89	3.40		47.4	1.89	0.00	1	LA
MZ2VCY_AL	42.5	-0.53	2.35		42.5	-0.53	0.00	1	AL
NPZPXR	44.1	0.27	4.99	H	44.1	0.27	0.00	1	GG
NUDKNM_AL	42.8	-0.37	2.12		42.8	-0.37	0.00	1	AL
NZWT2L	45.1	0.73	3.78		45.1	0.73	0.00	1	GA
PV39JM_AL	44.8	0.59	1.60		44.8	0.59	0.00	1	AL
PX72DL_AL	43.5	-0.04	2.02		43.5	-0.04	0.00	1	XX
QVWMYR_AL	41.2	-1.17	1.52		41.2	-1.17	0.00	1	AL
RU3WTD_AL	43.1	-0.23	2.45		43.1	-0.23	0.00	1	AL
T2WLML	44.7	0.53	3.63		44.7	0.53	0.00	1	TP
UEHAFK	43.7	0.04	1.90		43.7	0.04	0.00	1	LA



Containerboard Interlaboratory Testing Program

Analysis 237

Report #675

December 2025

Air Resistance, 42 lb Linerboard - 42N

TAPPI Official Test Method T460

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst
VX7Y6J	43.9	0.15	2.93	43.9	0.15	0.00	1	XX
WZTZMC_AL	43.9	0.15	2.12	43.9	0.15	0.00	1	AL
XE42W8	40.8	-1.33	3.62	40.8	-1.33	0.00	1	GA
YFWEVJ	46.5	1.44	4.54 H	46.5	1.44	0.00	1	TP
Z32MMK	45.6	0.99	1.71	45.6	0.99	0.00	1	XX
Consensus (All Labs) Results								
Month Mean			43.57	Grand Mean		43.57		
Avg SD			2.77	Avg SD Months		0.00		
SD btwn Labs			2.05	SD btwn Labs		2.05		
Labs Incd			43	Labs Incd		43		

Key to Instrument Codes Reported by Participants

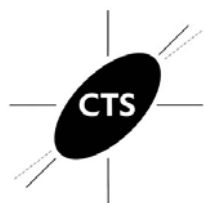
AL	L & W Autoline 400	GA	Gurley Precision #4340 Automatic Densometer
GG	Gurley Precision #4320 Densometer	LA	L&W Autoline (237 Enrollment)
LP	L&W Air Permeance Tester SE 166	TD	TMI Gurley Densometer
TP	Technidyne Profile/ plus Roughness & Porosity	XX	Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program
Analysis 240
Flat Crush Strength (CMT), 26 lb Corrugating Medium - CM61
TAPPI Official Test Method T809

Report #675
December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
2EDABC	49.6	52.6	52.5	52.2	51.7	-0.55	3.0	1.5	51.7	-0.55	3.0	1.5	4	MB
3M4389	53.7	54.9	55.5 L	54.4	54.6	0.44	1.6	0.8	54.6	0.44	1.6	0.8	4	LD
4CVYBA	53.8	52.7	53.5 L	52.8	53.2	-0.05	1.2	0.5	53.2	-0.05	1.2	0.5	4	XX
6343ME	50.3	51.5	51.1 L	51.9	51.2	-0.74	2.1	0.7	51.2	-0.74	2.1	0.7	4	LD
6P3623	58.4 L	58.4 L	58.4 L	58.4 L	58.4	1.74	0.5	0.0 L	58.4	1.74	0.5	0.0 L	4	LD
77PZYB	56.3	59.8 *	58.5 L	55.8	57.6	1.45	1.9	1.9	57.6	1.45	1.9	1.9	4	LC
87YC7E	56.0	54.8	58.7	59.6 *	57.2	1.33	2.0	2.2	57.2	1.33	2.0	2.2	4	LC
8DW74D	68.3 X	69.3 X	67.0 X	68.3 X	68.2	5.07 X	2.2	0.9	68.2	5.07 X	2.2	0.9	4	LD
94BDE3	51.4	54.2	54.1	50.5	52.6	-0.27	2.4	1.9	52.6	-0.27	2.4	1.9	4	XX
9T88D9	58.3	55.6	57.1	56.2 H	56.8	1.17	3.2	1.2	56.8	1.17	3.2	1.2	4	LD
9WA6N2	52.2	52.7	53.3	52.3	52.6	-0.25	1.6	0.5	52.6	-0.25	1.6	0.5	4	LD
AKBQ2A	No DATA	No DATA	No DATA	49.6	49.6	-1.29	2.1	0.0	49.6	-1.29	2.1	0.0	1	LD
AUEW33	57.7	57.9	54.4	55.7	56.4	1.05	3.2	1.7	56.4	1.05	3.2	1.7	4	LD
DPDUQY	55.0	52.8	52.8	50.2	52.7	-0.22	2.2	2.0	52.7	-0.22	2.2	2.0	4	LD
E24T84	49.6	49.3 L	49.3	50.3	49.6	-1.27	2.6	0.5	49.6	-1.27	2.6	0.5	4	LD
E48NQ7	52.2	52.8	51.7	53.2	52.5	-0.30	2.3	0.7	52.5	-0.30	2.3	0.7	4	LD
EMLZHW	57.4	54.5	49.6	53.7	53.8	0.15	2.4	3.2 H	53.8	0.15	2.4	3.2 H	4	TX
F2XX23	52.4	54.3	53.3	52.6	53.1	-0.08	2.8	0.9	53.1	-0.08	2.8	0.9	4	LZ
GBZTHX	54.0	53.8	55.4	53.6	54.2	0.29	2.3	0.8	54.2	0.29	2.3	0.8	4	LZ
GG6EMV	49.4	50.3	51.0	51.0	50.4	-1.00	2.1	0.8	50.4	-1.00	2.1	0.8	4	LD
GJCWLQ	50.1	49.1	51.2	49.2	49.9	-1.17	2.1	1.0	49.9	-1.17	2.1	1.0	4	LD
H4E4DU	59.3	50.9	54.9	53.3	54.6	0.43	2.8	3.5 H	54.6	0.43	2.8	3.5 H	4	LD
JYYUZQ	55.7	56.4	55.7	53.9	55.4	0.70	2.5	1.0	55.4	0.70	2.5	1.0	4	TX
L84XMR	47.5	51.1	51.3	49.3	49.8	-1.22	2.0	1.8	49.8	-1.22	2.0	1.8	4	LD
LH688V	54.2	53.2	52.1	52.1	52.9	-0.16	2.4	1.0	52.9	-0.16	2.4	1.0	4	LD
LQFHJV	56.3	55.4	52.2 L	53.3	54.3	0.32	1.9	1.9	54.3	0.32	1.9	1.9	4	LZ
MA689T	50.9	51.9	51.2	51.9	51.5	-0.63	3.4	0.5	51.5	-0.63	3.4	0.5	4	LD
MYTV2Q	58.0	57.3 H	56.3	58.0	57.4	1.38	3.9	0.8	57.4	1.38	3.9	0.8	4	TU
MZ2VCY	54.8	50.8	49.3 H	58.6	53.4	0.01	9.0	4.2 H	53.4	0.01	9.0	4.2 H	4	LC
NZWT2L	50.1	49.2	48.1	49.5	49.2	-1.41	2.3	0.8	49.2	-1.41	2.3	0.8	4	LZ
PV39JM	47.4	48.5	46.9 *L	47.7	47.6	-1.96 *	1.8	0.7	47.6	-1.96 *	1.8	0.7	4	LD
PY3KFM	55.4	57.2	54.1	56.2	55.7	0.81	2.8	1.3	55.7	0.81	2.8	1.3	4	LD
QDEF9P	51.5	52.5	52.8	53.6	52.6	-0.25	3.0	0.9	52.6	-0.25	3.0	0.9	4	EN
QM2KWF	50.0	49.7	50.5	50.2	50.1	-1.11	2.0	0.4	50.1	-1.11	2.0	0.4	4	EM
RU3WTD	55.4	55.9	54.8	54.6	55.2	0.63	2.4	0.6	55.2	0.63	2.4	0.6	4	LZ



Containerboard Interlaboratory Testing Program
Analysis 240
Flat Crush Strength (CMT), 26 lb Corrugating Medium - CM61
 TAPPI Official Test Method T809

Report #675
December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	
T2WLML	47.5	47.8	50.6	50.8	49.2	-1.42	2.3	1.8	49.2	-1.42	2.3	1.8	4	LD
TVQTRQ	58.6 L	60.0 *L	59.8 *L	61.5 *L	59.9	2.25 *	0.6	1.2	59.9	2.25 *	0.6	1.2	4	XX
UY3BBJ	56.4	57.3	54.0	54.5	55.5	0.75	2.7	1.6	55.5	0.75	2.7	1.6	4	LD
VX7Y6J	56.4	54.8	57.8 L	56.4	56.3	1.02	2.4	1.2	56.3	1.02	2.4	1.2	4	LD
WDDFQB	52.5	54.9	54.2	52.4	53.5	0.05	2.8	1.2	53.5	0.05	2.8	1.2	4	EN
X7TYB7	53.4	53.7	54.5	54.6	54.1	0.25	3.0	0.6	54.1	0.25	3.0	0.6	4	LD
X8MPGK	49.6	49.3	49.1	49.5	49.4	-1.36	1.7	0.2 L	49.4	-1.36	1.7	0.2 L	4	MB
XFXR3L	52.2 L	52.0 L	52.0 L	52.0 L	52.1	-0.44	0.7	0.1 L	52.1	-0.44	0.7	0.1 L	4	TU
YFWEVJ	54.1	54.3	51.8 L	51.4	52.9	-0.15	2.5	1.5	52.9	-0.15	2.5	1.5	4	LC
Z32MMK	49.2	50.0	50.4	54.7	51.1	-0.77	2.2	2.5	51.1	-0.77	2.2	2.5	4	LD
Z7ZXJK	58.1	59.1	58.3	59.4	58.8	1.85	2.4	0.6	58.8	1.85	2.4	0.6	4	TB

Consensus (All Labs) Results														
Wk Mean	53.46	53.53	53.27	53.38	Month Mean	53.34	Grand Mean	53.34						
Avg SDr	2.47	2.45	3.58	2.21	Avg SD	2.72	Avg SD	2.72						
SD btwn Labs	3.39	3.17	3.07	3.15	SD btwn Labs	2.93	SD btwn Labs	2.93						
Labs Incd	44	44	44	45	SD btwn Wks	1.52	SD btwn Wks	1.52						
Labs Excd	1	1	1	1	Labs Incd	45	Labs Incd	45						
Labs not Rcvd	1	1	1	0										

Key to Instrument Codes Reported by Participants

EM	Emerson 1200 Series	EN	Emerson 2200 Series
LC	L&W Crush Tester 48	LD	L&W Crush Tester 248
LZ	L&W Crush Tester (model not specified)	MB	Messmer Buchel K440
TB	TMI Monitor/Compression Tester, 17-70	TU	TMI Universal Crush Tester (TMI K440)
TX	TMI Crush Tester (model not specified)	XX	Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program

Analysis 250

Report #675

December 2025

Fluted Edge Crush Strength (CFC), 26 lb Corrugating Medium - CM61

TAPPI Official Test Method T843

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
3M4389	61.0	60.7	60.0	59.7	60.3	0.34	2.4	0.6	60.3	0.34	2.4	0.6	4	LD
4CVYBA	63.8	62.7 L	64.0	63.1	63.4	0.98	1.1	0.6	63.4	0.98	1.1	0.6	4	XX
6343ME	60.2	61.6	61.7	60.0 H	60.8	0.45	3.0	0.9	60.8	0.45	3.0	0.9	4	LD
8DW74D	68.7 *	70.6 *	70.1 *	70.3 *	69.9	2.33 *	2.2	0.8	69.9	2.33 *	2.2	0.8	4	LD
94BDE3	61.3	61.0	62.5	58.4 L	60.8	0.44	1.9	1.7	60.8	0.44	1.9	1.7	4	XX
9WA6N2	56.9	57.1	57.1	56.9	57.0	-0.35	1.5	0.1 L	57.0	-0.35	1.5	0.1 L	4	LD
DEFQL6	53.9	52.6	54.3	55.8	54.1	-0.93	2.0	1.3	54.1	-0.93	2.0	1.3	4	LD
DPDUQY	62.4	62.0	59.3	61.0 L	61.2	0.51	2.2	1.4	61.2	0.51	2.2	1.4	4	LD
E48NQ7	56.6	59.0	58.0	58.1	57.9	-0.15	2.0	1.0	57.9	-0.15	2.0	1.0	4	LD
EDBXXV	59.0	53.9	57.4	58.5	57.2	-0.30	3.1	2.3	57.2	-0.30	3.1	2.3	4	XX
GBZTHX	54.6 H	54.1	56.2	54.8	54.9	-0.77	3.1	0.9	54.9	-0.77	3.1	0.9	4	LZ
GG6EMV	58.0	59.3	61.7	58.0	59.2	0.12	2.0	1.8	59.2	0.12	2.0	1.8	4	LD
H4E4DU	53.9	59.0	52.3	58.6	56.0	-0.56	2.1	3.4 H	56.0	-0.56	2.1	3.4 H	4	XX
LQFHJV	58.3	58.7	56.4 L	58.6	58.0	-0.14	2.0	1.1	58.0	-0.14	2.0	1.1	4	LZ
MA689T	46.4 *H	48.3 *H	47.4 *H	47.5 *H	47.4	-2.33 *	5.7	0.8	47.4	-2.33 *	5.7	0.8	4	LD
MZ2VCY	59.8	60.0	60.7	61.6	60.5	0.38	1.8	0.8	60.5	0.38	1.8	0.8	4	LC
PV39JM	58.2	57.9	60.7	60.3	59.3	0.13	1.8	1.4	59.3	0.13	1.8	1.4	4	LD
T2WLML	59.2	58.4	59.1	59.6	59.1	0.09	2.6	0.5	59.1	0.09	2.6	0.5	4	LD
TVQTRQ	70.0 *L	70.0 *L	69.2 *	70.3 *L	69.9	2.31 *	1.1	0.5	69.9	2.31 *	1.1	0.5	4	XX
UY3BBJ	54.0	56.5	54.4	53.8 L	54.7	-0.83	1.5	1.2	54.7	-0.83	1.5	1.2	4	LD
VX7Y6J	50.7 H	52.6	51.3	52.4	51.7	-1.43	3.2	0.9	51.7	-1.43	3.2	0.9	4	XX
WDDFQB	58.0	57.9	58.3	57.2	57.9	-0.16	1.7	0.5	57.9	-0.16	1.7	0.5	4	LC
X8MPGK	57.3	57.1	57.0	57.8	57.3	-0.29	1.7	0.3	57.3	-0.29	1.7	0.3	4	MB
YFWEVJ	58.0	60.3	59.6	60.1	59.5	0.17	2.0	1.0	59.5	0.17	2.0	1.0	4	LC
Consensus (All Labs) Results														
Wk Mean	58.34	58.80	58.69	58.84	Month Mean	58.67				Grand Mean	58.67			
Avg SDr	2.52	2.06	2.73	2.30	Avg SD	2.42				Avg SD	2.42			
SD btwn Labs	5.08	4.91	5.08	4.80	SD btwn Labs	4.84				SD btwn Labs	4.84			
Labs Incl	24	24	24	24	SD btwn Wks	1.27				SD btwn Wks	1.27			
Labs Excl	0	0	0	0	Labs Incl	24				Labs Incl	24			
Labs not Rcvd	0	0	0	0										



Containerboard Interlaboratory Testing Program

Analysis 250

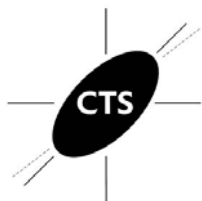
**Report #675
December 2025**

Fluted Edge Crush Strength (CFC), 26 lb Corrugating Medium - CM61

TAPPI Official Test Method T843

Key to Instrument Codes Reported by Participants

LC	L&W Crush Tester 48	LD	L&W Crush Tester 248
LZ	L&W Crush Tester (model not specified)	MB	Messmer Buchel K440
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
Analysis 255
Ring Crush (RCT), 26 lb Corrugating Medium - CM61
 TAPPI Official Test Method T822

Report #675
December 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
2EDABC	34.3	31.2	31.3	32.4	32.3	-0.23	2.3	1.4	32.3	-0.23	2.3	1.4	4	MB
4CVYBA	32.6	32.5 L	32.2	32.4	32.4	-0.16	1.0	0.1 L	32.4	-0.16	1.0	0.1 L	4	MZ
6343ME	29.8	29.7	31.6	31.5	30.7	-1.33	1.8	1.0	30.7	-1.33	1.8	1.0	4	LD
6P3623	43.4 XL	43.4 XL	43.4 XL	43.5 XL	43.4	7.13 X	0.5	0.0 L	43.4	7.13 X	0.5	0.0 L	4	LD
87YC7E	35.3	35.2	35.7	36.3	35.6	1.97 *	1.4	0.5	35.6	1.97 *	1.4	0.5	4	XX
94BDE3	30.6	31.3	33.1	30.9	31.5	-0.79	2.1	1.1	31.5	-0.79	2.1	1.1	4	XX
9T88D9	33.0	34.1	33.7	32.8	33.4	0.47	2.1	0.6	33.4	0.47	2.1	0.6	4	LD
AUEW33	31.6	34.0	33.6	30.8	32.5	-0.11	1.8	1.5	32.5	-0.11	1.8	1.5	4	LD
DPDUQY	30.7	31.3	29.0	30.1	30.3	-1.59	1.0	0.9	30.3	-1.59	1.0	0.9	4	LD
DQ7RUY	14.0 X	15.6 X	16.9 X	16.1 X	15.7	-11.29 X	1.7	1.2	15.7	-11.29 X	1.7	1.2	4	XX
E24T84	31.2	31.2	30.7	31.3	31.1	-1.05	1.7	0.3	31.1	-1.05	1.7	0.3	4	LD
E48NQ7	33.2	33.5	31.5	31.7	32.5	-0.12	1.7	1.0	32.5	-0.12	1.7	1.0	4	LD
EDBXXV	31.8	31.9	32.9	32.7	32.3	-0.22	1.7	0.6	32.3	-0.22	1.7	0.6	4	LD
EMLZHW	35.0	36.0	31.6	35.8	34.6	1.28	1.7	2.0	34.6	1.28	1.7	2.0	4	LZ
EZMVE4	31.2	29.6	30.2	31.0	30.5	-1.43	1.5	0.7	30.5	-1.43	1.5	0.7	4	TH
H4E4DU	35.7	31.8	32.6	33.1	33.3	0.42	1.6	1.7	33.3	0.42	1.6	1.7	4	LD
JYYUZQ	26.8 *	25.5 X	28.2 *	27.4 *	27.0	-3.79 X	2.3	1.1	27.0	-3.79 X	2.3	1.1	4	MZ
L84XMR	32.5	31.9	34.2	34.2	33.2	0.35	1.2	1.2	33.2	0.35	1.2	1.2	4	LZ
LH688V	34.7	33.7	33.0	34.1	33.9	0.80	1.7	0.7	33.9	0.80	1.7	0.7	4	EM
NZWT2L	31.6	31.0	30.3	33.1	31.5	-0.80	1.9	1.2	31.5	-0.80	1.9	1.2	4	LD
PV39JM	32.5	33.7	34.0	32.2	33.1	0.29	1.9	0.9	33.1	0.29	1.9	0.9	4	LD
RU3WTD	38.6 *	38.2 *	38.1 *	37.9 *	38.2	3.67 X	2.1	0.3	38.2	3.67 X	2.1	0.3	4	LZ
T2WLML	30.4	31.0	32.2	32.2	31.4	-0.81	2.2	0.9	31.4	-0.81	2.2	0.9	4	LD
X7TYB7	31.3	32.9 H	35.2	34.5	33.5	0.54	2.3	1.7	33.5	0.54	2.3	1.7	4	LD
X8MPGK	32.2	32.2	32.5	32.5	32.3	-0.22	1.5	0.2 L	32.3	-0.22	1.5	0.2 L	4	MB
XFXR3L	32.6 L	32.7 L	32.6 L	32.6 L	32.6	-0.03	0.4	0.0 L	32.6	-0.03	0.4	0.0 L	4	TU
YFWEVJ	31.6	31.4	32.5	31.5	31.8	-0.61	2.0	0.5	31.8	-0.61	2.0	0.5	4	LC
Z32MMK	34.6	35.3	33.1	32.9	34.0	0.86	2.0	1.2	34.0	0.86	2.0	1.2	4	LD
Z7ZXJK	36.1	37.0 *	36.6	36.1	36.4	2.50 *	1.5	0.5	36.4	2.50 *	1.5	0.5	4	XX
Consensus (All Labs) Results														
Wk Mean	32.64	32.85	32.68	32.74	Month Mean	32.67		Grand Mean	32.67					
Avg SDr	1.53	1.80	1.68	2.01	Avg SD	1.72		Avg SD	1.72					
SD btwn Labs	2.37	2.15	2.17	2.13	SD btwn Labs	1.50		SD btwn Labs	1.50					
Labs Incl	27	26	27	27	SD btwn Wks	1.04		SD btwn Wks	1.04					
Labs Excl	2	3	2	2	Labs Incl	25		Labs Incl	25					
Labs not Rcvd	0	0	0	0										



Containerboard Interlaboratory Testing Program
Analysis 255
Ring Crush (RCT), 26 lb Corrugating Medium - CM61
TAPPI Official Test Method T822

Report #675
December 2025

Key to Instrument Codes Reported by Participants

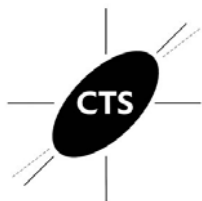
EM	Emerson 1200 Series	LC	L&W Crush Tester 48
LD	L&W Crush Tester 248	LZ	L&W Crush Tester (model not specified)
MB	Messmer Buchel K440	MZ	Messmer Buchel (model not specified)
TH	TMI Compression Tester, Model 17-76	TU	TMI Universal Crush Tester (TMI K440)
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
Analysis 261
STFI, 26 lb Corrugating Medium - CM61
TAPPI Official Test Method T826

Report #675
December 2025

WebCode	Weekly Means					Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4		Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
2EDABC	10.6	10.8	10.5	H 10.0	L	10.5	-0.43	0.8	0.3	10.5	-0.43	0.8	0.3	4	LA
4CVYBA	12.2 *	12.1 *	12.0 *	12.0 *		12.1	2.52 *	0.6	0.1 L	12.1	2.52 *	0.6	0.1 L	4	LZ
77PZYB	9.6	10.0 H	10.2	10.3		10.0	-1.27	0.8	0.3	10.0	-1.27	0.8	0.3	4	LA
7F8NP4	10.9 L	10.4	11.2	11.1		10.9	0.33	0.7	0.4	10.9	0.33	0.7	0.4	4	LA
8DW74D	13.1 X	13.7 X	13.7 X	13.5 X		13.5	5.09 X	0.8	0.3	13.5	5.09 X	0.8	0.3	4	LA
9WA6N2	10.4	11.5	11.0	10.2 H		10.8	0.09	0.9	0.6	10.8	0.09	0.9	0.6	4	LA
AKBQ2A	No DATA	No DATA	No DATA	10.3 L		10.3	-0.82	0.4	0.0	10.3	-0.82	0.4	0.0	1	LH
AUEW33	10.8 H	11.2	10.7	10.7		10.9	0.27	0.9	0.2	10.9	0.27	0.9	0.2	4	LH
E24T84	10.8	10.3	10.8 L	10.7		10.7	-0.12	0.7	0.2	10.7	-0.12	0.7	0.2	4	XX
EDBXXV	15.5 XH	15.3 X	15.1 XH	No DATA		15.3	8.43 X	1.3	0.2	15.3	8.43 X	1.3	0.2	3	LH
EMLZHW	11.4	12.3 *	10.1	11.8 *		11.4	1.27	0.6	1.0	11.4	1.27	0.6	1.0	4	XX
GG6EMV	10.3	11.0	10.6	14.1 X		11.5	1.44	0.9	1.8 H	11.5	1.44	0.9	1.8 H	4	LA
H4E4DU	11.2	10.2 L	10.6 L	10.7 L		10.7	-0.05	0.4	0.4	10.7	-0.05	0.4	0.4	4	LZ
JYYUZQ	10.0	10.5	11.2	10.8		10.6	-0.18	0.8	0.5	10.6	-0.18	0.8	0.5	4	TS
K7UBPM	10.3	11.1	10.8	11.0		10.8	0.15	0.8	0.4	10.8	0.15	0.8	0.4	4	XX
L84XMR	7.9 X	8.2 XL	8.1 X	7.9 XL		8.0	-4.95 X	0.5	0.2	8.0	-4.95 X	0.5	0.2	4	LZ
LH688V	10.8	10.6	11.1	11.3		10.9	0.41	1.0	0.3	10.9	0.41	1.0	0.3	4	LH
LP7K4T	10.1 L	11.0 L	10.7 L	10.8 L		10.7	-0.09	0.0	0.4	10.7	-0.09	0.0	0.4	4	LA
MA689T	10.3	10.1	10.3	10.1		10.2	-0.95	0.7	0.1 L	10.2	-0.95	0.7	0.1 L	4	LB
MYTV2Q	11.4	10.9	10.4	10.3		10.8	0.06	0.7	0.5	10.8	0.06	0.7	0.5	4	LA
NLGUWK	9.7	9.8	9.7 *	9.4		9.6	-1.98 *	0.6	0.2	9.6	-1.98 *	0.6	0.2	4	LU
NUDKNM	10.7 L	10.2 L	10.0 L	9.9 L		10.2	-0.94	0.1	0.3	10.2	-0.94	0.1	0.3	4	LA
NZWT2L	10.6	10.2 L	15.0 X	10.4		11.5	1.52	0.6	2.3 H	11.5	1.52	0.6	2.3 H	4	LB
PV39JM	11.1	10.5	11.3	10.7		10.9	0.36	0.5	0.4	10.9	0.36	0.5	0.4	4	LA
QM2KWF	10.4	10.2	10.6	10.0		10.3	-0.76	0.7	0.3	10.3	-0.76	0.7	0.3	4	LH
T2WLML	9.7	10.0	10.4	10.0		10.0	-1.28	0.8	0.3	10.0	-1.28	0.8	0.3	4	LB
TVQTRQ	10.0	10.0	10.0	10.1		10.0	-1.27	0.7	0.1 L	10.0	-1.27	0.7	0.1 L	4	XX
VX7Y6J	10.5 L	11.3 L	11.0 L	11.2 L		11.0	0.52	0.0	0.3	11.0	0.52	0.0	0.3	4	LH
X7TYB7	11.9 *H	12.2 *H	11.9 *	9.6 H		11.4	1.24	1.0	1.2	11.4	1.24	1.0	1.2	4	LH
XFXR3L	10.1	10.9	10.9	10.2		10.5	-0.35	0.7	0.4	10.5	-0.35	0.7	0.4	4	XX
YFWEVJ	10.9	10.8	10.9	11.0		10.9	0.32	0.7	0.1 L	10.9	0.32	0.7	0.1 L	4	LU



Containerboard Interlaboratory Testing Program

Analysis 261

STFI, 26 lb Corrugating Medium - CM61

TAPPI Official Test Method T826

Report #675

December 2025

Consensus (All Labs) Results								
Wk Mean	10.62	10.74	10.72	10.54	Month Mean	10.71	Grand Mean	10.71
Avg SDr	0.66	0.77	0.70	0.75	Avg SD	0.72	Avg SD	0.72
SD btwn Labs	0.65	0.69	0.55	0.62	SD btwn Labs	0.54	SD btwn Labs	0.54
Labs Incl	27	27	26	27	SD btwn Wks	0.70	SD btwn Wks	0.70
Labs Excl	3	3	4	3	Labs Incl	28	Labs Incl	28
Labs not Rcvd	1	1	1	1				

Key to Instrument Codes Reported by Participants

LA	L&W Autoline	LB	L&W Model 152
LH	L&W 282	LU	L&W 52 without moisture correction (was 53)
LZ	L&W (model not specified)	TS	TMI Monitor/STFI Compression Tester, 17-33
XX	Instrument make/model not specified by lab		

End of Report