

Containerboard Interlaboratory Testing Program

Participant Summary Report #679 - April 2026

[Introduction to the Containerboard Program](#)

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

Analysis	Sample	Analysis Name
<u>201</u>	<u>BX20</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>42N1</u>	<u>Roughness - Stylus Method, 42 lb Linerboard</u>
<u>229</u>	<u>42N</u>	<u>Roughness - Sheffield Method, 42 lb Linerboard</u>
<u>231</u>	<u>42N1</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	42N1	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 Incd - 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 - BX20
 TAPPI Official Test Method T804

Report #679
April 2026

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst
2FKPFQ	572.1	-0.80	40.30	564.0	-0.98	64.98 H	4	TB
3L689R	644.2	0.85	17.01	640.8	0.79	8.62	3	EX
3QKHLW	600.8	-0.14	72.25	600.4	-0.14	29.88	4	ER
7BCXCU	600.7	-0.14	45.03	614.7	0.19	32.03	3	XX
8GX82H	592.1	-0.34	58.49	594.4	-0.28	7.46	4	LS
8HTQ4K	595.8	-0.25	54.56	590.1	-0.38	42.89	4	LG
8LCL4Q	570.4	-0.84	32.89	591.3	-0.35	34.27	4	ER
8VE76X	578.8	-0.64	41.91	573.9	-0.75	10.81	4	LG
98QTPP	637.0	0.69	14.27	628.4	0.51	13.27	4	EX
9M44KH	659.3	1.20	81.20	701.6	2.19 *	41.65	4	ET
D97LVU	645.3	0.88	25.21	625.4	0.44	43.59	3	LO
DJJ6UG	677.6	1.62	42.38	682.2	1.75	14.46	3	LS
GL4T68	669.2	1.43	34.93	642.0	0.82	30.91	4	EX
GN7U4J	496.4	-2.53 *	39.91	493.3	-2.61 *	4.38	2	LL
HKMY3C	616.6	0.22	20.44	606.6	0.00	9.11	4	ER
MQV78W	544.2	-1.44	44.29	526.1	-1.85	29.14	4	LL
NXTZ3A	557.2	-1.14	41.23	564.6	-0.96	10.44	2	LM
PPAGVF	538.8	-1.56	31.58	572.1	-0.79	40.41	4	LG
Q3D3Y6	623.1	0.37	39.75	606.0	-0.01	40.39	4	EX
QLQJ76	594.6	-0.28	67.12	621.2	0.34	44.39	4	LS
THFJX3	620.2	0.30	73.08	622.8	0.38	14.20	4	EX
U8DKM9	598.5	-0.19	12.02	587.2	-0.44	18.62	4	EX
UEWNWV	584.6	-0.51	33.64	606.7	0.01	24.72	4	LG
W6YX3Y	625.4	0.42	71.31	602.3	-0.09	27.99	4	EX
X3Q6K7	631.0	0.55	22.93	611.2	0.11	18.79	4	ER
YR9K2A	663.3	1.29	37.09	652.2	1.06	8.01	4	LM
YUQY7V	648.9	0.96	39.29	651.8	1.05	11.40	4	LG

Consensus (All Labs) Results			
Month Mean	606.90	Grand Mean	606.42
Avg SD	45.85	Avg SD Months	29.29
SD btwn Labs	43.65	SD btwn Labs	43.37
Labs Incl	27	Labs Incl	27



Containerboard Interlaboratory Testing Program
 Analysis 201
Top to Bottom Box Compression Strength, Corrugated Boxes - BX20
 TAPPI Official Test Method T804

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Consensus By Method

Test Method	Group Mean	SD btwn Group	Difference from Grand Mean	Labs Included
Hot melt adhesive sealing	610.01	34.96	3.12	9
Clip sealing	604.93	51.30	1.97	16
Staple sealing	616.58	0.00	9.68	1

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
LL Lansmont 76-5K	LM Lansmont 122-15k
LO Lansmont 152-30k	LS Lansmont Squeezer
TB TMI Monitor/Compression Tester, Model 17-70	XX Instrument make/model not specified by lab



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

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WebCode	Monthly Results				Cumulative Results				Inst
	Mean	CPV	SD		Mean	CPV	SD Months	Months	
3MZNLP	40.5	-0.22	0.95	L	39.6	-0.27	0.70	4	TS
8GX82H	41.6	0.02	2.74		40.3	-0.08	1.46	4	LD
8VE76X	43.3	0.43	1.86		44.3	0.88	0.73	4	EX
GL4T68	45.7	0.99	2.04		46.2	1.35	0.98	4	LC
GV6GW6	39.1	-0.55	2.41		38.2	-0.60	0.73	4	TS
KT7CRM	37.1	-1.01	2.86		36.1	-1.12	4.39	H 4	TH
V7Z9KW	45.7	0.99	1.14		70.3	7.25	26.72	H 4	TD
W6YX3Y	46.3	1.13	2.12		45.1	1.08	0.89	4	LC
X3Q6K7	33.8	-1.79	3.08	*	35.6	-1.24	2.61	4	EN

Consensus (All Labs) Results				
Month Mean		41.46	Grand Mean	40.67
Avg SD		2.24	Avg SD Months	1.99
SD btwn Labs		4.30	SD btwn Labs	4.08
Labs Incd		9	Labs Incd	8

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
TD	TMI Digital Crush Tester, Model 17-09	TH	TMI Monitor/Compression Tester, Model 17-76
TS	TMI Digital Crush Tester, Model 17-56		



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

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WebCode	Monthly Results				Cumulative Results				Inst
	Mean	CPV	SD		Mean	CPV	SD Months	Months	
2FKPFQ	46.3	0.15	0.89	L	50.4	1.33	4.11	4	LD
3L689R	42.6	-0.97	0.97		45.7	-0.12	2.68	3	CT
3MZNLP	40.6	-1.60	1.07		40.3	-1.82	0.23	L 4	TS
3QKHLW	47.4	0.47	1.18		46.9	0.25	0.42	4	EM
4HLD8L	51.3	1.66	0.96		50.3	1.31	1.03	4	TU
88R4CM	43.3	-0.77	5.32	H	47.1	0.32	4.90	H 4	TE
8GX82H	45.5	-0.11	1.26		45.1	-0.32	2.45	4	LD
8HTQ4K	51.1	1.60	0.39	L	49.5	1.06	1.58	4	MK
8LCL4Q	47.5	0.51	2.00		43.1	-0.95	3.01	4	LD
8VE76X	46.1	0.07	1.48		46.5	0.12	0.44	4	LY
98QTTP	45.3	-0.17	2.14		42.5	-1.13	1.90	4	LD
9JJCAF	49.7	1.17	1.18		48.7	0.82	1.11	3	EM
9M44KH	44.2	-0.51	1.49		46.4	0.09	1.72	4	TD
D97LVU	43.7	-0.66	1.34		43.8	-0.72	0.72	3	LD
DJJ6UG	44.4	-0.44	1.71		45.0	-0.36	1.24	4	EM
GL4T68	47.9	0.63	1.84		48.3	0.69	0.68	4	LC
GN7U4J	48.3	0.75	6.51	H	44.4	-0.53	5.52	2	EM
GV6GW6	44.4	-0.44	0.65	L	44.4	-0.53	1.64	4	TS
HKMY3C	49.7	1.16	1.64		49.3	1.00	4.28	4	LD
KT7CRM	41.5	-1.30	1.36		43.6	-0.80	3.24	4	TH
M36LD3	38.7	-2.15 *	0.92		38.3	-2.43 *	0.99	4	BU
NXTZ3A	44.8	-0.30	3.03		45.3	-0.24	0.43	4	TG
P8T8WZ	48.6	0.84	1.56		49.2	0.97	0.41	4	EM
QLPMV9	39.3	-1.98 *	1.65		40.1	-1.89	0.91	4	XX
QLQJ76	44.2	-0.49	1.30		47.1	0.30	2.26	4	EM
RCFKA9	51.2	1.64	1.47		52.2	1.89	1.84	4	TG
TCTQL4	47.2	0.42	1.06		48.6	0.79	0.97	4	EM
V7Z9KW	45.7	-0.04	1.14		58.2	3.78 X	24.88 H	4	TD
W6YX3Y	48.1	0.67	1.72		48.5	0.74	1.13	4	LC
X3Q6K7	42.3	-1.09	1.37		43.3	-0.87	1.66	4	EN
YR9K2A	47.0	0.34	1.22		46.1	-0.02	1.26	4	EM
YUQY7V	45.1	-0.23	1.43		47.4	0.39	2.73	4	BU
ZY2CNT	49.7	1.17	1.12		48.2	0.65	1.44	4	LC



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

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Consensus (All Labs) Results			
Month Mean	45.84	Grand Mean	46.11
Avg SD	2.03	Avg SD Months	2.28
SD btwn Labs	3.30	SD btwn Labs	3.20
Labs Incl'd	33	Labs Incl'd	32

Key to Instrument Codes Reported by Participants

- | | |
|--|---|
| <p>BU Buchel Digital Crush Tester</p> <p>EM Emerson 1200 Series</p> <p>LC L&W Crush Tester 48</p> <p>LY L&W 830</p> <p>TD TMI Digital Crush Tester, Model 17-09</p> <p>TG TMI Digital Crush Tester, 17-76</p> <p>TS TMI Digital Crush Tester, Model 17-56</p> <p>XX Instrument make/model not specified by lab</p> | <p>CT Con-Ten</p> <p>EN Emerson 2200</p> <p>LD L&W Crush Tester 248</p> <p>MK Mark-10 ESM303</p> <p>TE TMI Monitor/Compression Tester, Model 17-60</p> <p>TH TMI Monitor/Compression Tester, Model 17-76</p> <p>TU TMI Universal Crush Tester (TMI K440)</p> |
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Containerboard Interlaboratory Testing Program
 Analysis 205
Bursting Strength (Mullen), 42 lb Linerboard - 42N1
 TAPPI Official Test Method T807

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April 2026

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
2FKPFQ	114.5	115.2	115.2	112.8	114.4	-0.34	9.2	1.1	109.6	-1.18	9.5	3.9	16	XX
2ZYGR	111.4	107.9	106.3	103.1 *	107.2	-1.94 *	7.6	3.4	106.2	-1.94 *	7.6	2.4	12	TP
3L689R	119.0 H	120.5	118.5	118.5	119.1	0.69	11.5	0.9	117.3	0.54	10.0	2.8	12	XX
4P4J6R_AL	110.3	123.2	114.9	120.3	117.2	0.27	9.7	5.7	117.0	0.48	8.6	3.8	16	AL
76BLGX_AL	116.7	113.3	114.2	113.7	114.5	-0.33	7.3	1.5	114.5	-0.09	7.3	1.5	4	AL
84CXDR	114.2	114.7	115.9	115.1	115.0	-0.22	5.7	0.7	114.7	-0.05	5.8	0.7 L	16	LJ
88R4CM	115.2	117.3 H	118.0	117.3	117.0	0.22	11.2	1.2	115.1	0.05	9.6	2.9	16	LC
8BVYVQ_AL	111.6	115.8	117.1	113.2	114.4	-0.34	5.5	2.5	113.7	-0.26	8.0	1.7	12	AL
8GX82H	116.9	117.1	119.0	121.8	118.7	0.60	9.8	2.3	115.9	0.22	9.4	2.8	16	LA
8LCL4Q	112.0	112.0	110.0	115.9	112.5	-0.77	7.5	2.5	109.2	-1.27	7.8	2.7	16	LZ
92ZHJR	117.9	113.8	115.8	119.4	116.7	0.16	7.5	2.4	117.6	0.61	9.8	2.3	16	LC
98QTTP	120.0 L	118.6	119.6 L	120.4 L	119.7	0.81	4.7	0.8	114.3	-0.13	7.3	4.4	16	AH
9JJCAF_AL	116.4	111.5	112.7	111.4	113.0	-0.65	9.6	2.4	109.7	-1.16	8.3	3.6	16	AL
9RVB4R	129.1 *	132.0 *	133.2 X	129.4 *	130.9	3.29 X	5.1	2.0	117.9	0.67	2.7	7.8 H	16	LA
B2DQMC_AL	112.3	114.3	117.9	114.4	114.7	-0.28	9.3	2.3	112.0	-0.64	8.4	4.0	16	AL
BD88CD	108.2	108.3	113.0	108.5	109.5	-1.43	9.6	2.3	110.2	-1.04	8.8	2.3	12	LZ
BG328T	113.3	106.7	117.6	115.3	113.2	-0.60	8.7	4.7	115.3	0.08	9.1	2.9	16	LA
BUBHFJ	125.7	130.7 *	129.9 *	140.5 X	131.7	3.46 X	6.7	6.3	130.0	3.37 X	9.4	4.1	16	AX
BZGBAE	108.4	108.3 L	109.5	110.2	109.1	-1.51	4.2	0.9	110.3	-1.03	3.7	1.4	16	XX
F2DK6R	116.2	112.5	114.7	112.5	114.0	-0.44	9.5	1.8	112.7	-0.49	8.8	3.2	16	ME
G7QK64_AL	124.7	123.0	118.2	115.4	120.3	0.96	9.9	4.3	118.8	0.88	10.2	3.4	8	AL
HJRGZB	112.2 H	121.9	110.9	117.9	115.7	-0.05	10.3	5.1	115.5	0.13	7.7	3.7	16	LC
HJRGZB_AL	115.2	131.8 *H	116.8	124.2	122.0	1.33	11.1	7.6 H	117.8	0.64	9.8	4.7	16	AL
HKMY3C	110.9	109.9	114.3	117.2	113.1	-0.64	9.2	3.3	111.2	-0.83	7.9	3.3	16	LA
HKMY3C_AL	118.6	112.6	110.3	118.3	115.0	-0.22	10.5	4.1	116.3	0.32	9.1	4.3	16	AK
JKWMEN	110.9	119.8	122.8	122.1	118.9	0.65	7.1	5.5	121.3	1.43	6.8	4.6	16	LA
KP8ZWM_AL	123.6	120.3	125.9	121.8	122.9	1.52	8.6	2.4	121.1	1.39	8.7	2.7	15	AL
KT7CRM	116.9	122.1	120.8	120.0	120.0	0.88	7.2	2.2	119.8	1.09	9.6	2.9	16	TX
NPFC3G	108.1	109.0	108.4	109.8	108.8	-1.58	7.4	0.8	108.9	-1.33	7.4	1.9	16	LC
NTVGZC_AL	122.3	117.9	117.9	116.8	118.7	0.60	10.5	2.4	116.5	0.35	9.1	3.4	16	AL
NUA724_AL	110.3	115.6	117.1	109.3	113.1	-0.64	7.4	3.9	113.3	-0.34	14.7	4.8	16	AL
PQ6W9D_AL	110.0	110.0	108.6	110.9	109.9	-1.34	7.6	1.0	108.1	-1.50	8.6	2.5	16	XX
PT9TU2	122.6	119.8	117.7	120.0	120.0	0.89	7.5	2.0	121.9	1.56	8.3	2.3	16	LC
Q92KE3	118.1	132.0 *	125.8	123.5	124.9	1.96 *	11.8	5.8	126.2	2.52 *	10.8	5.2	12	XX
QGUVMC_AI	No DATA	No DATA	No DATA	120.1	120.1	0.91	7.4	0.0	118.0	0.70	8.8	3.5	12	AL



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

Report #679
April 2026

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	
QYT8XY	123.8	121.6	120.0	117.4	120.7	1.04	8.9	2.7	120.7	1.30	8.9	2.7	4	XX
RGEXUC	116.9	113.9	120.9	123.8	118.9	0.64	9.4	4.4	117.2	0.51	8.7	3.4	16	LA
RGEXUC_AL	114.3	120.5	121.6	115.5	118.0	0.44	8.9	3.6	115.2	0.06	6.8	3.0	16	AL
TFDKMA	113.9	109.3	112.6	115.2	112.7	-0.71	9.4	2.5	114.9	0.00	10.0	2.7	13	TB
TG94NC_AL	107.3	108.7	104.1 *	107.0	106.8	-2.03 *	6.6	1.9	106.7	-1.83	8.1	2.1	16	AL
W6YX3Y	117.4	116.6	113.9	115.7	115.9	-0.01	7.6	1.5	114.8	-0.01	8.5	4.7	16	AH
X2E32R	114.4	108.6	111.0	113.1	111.8	-0.92	7.4	2.5	111.5	-0.76	8.1	3.4	16	XX
XNA7F6	111.8	109.9	108.4	106.2 *	109.1	-1.52	8.0	2.4	109.1	-1.29	8.1	1.8	16	LC
Y4FPR2_AL	123.9	118.8	119.6	119.6	120.5	0.99	8.5	2.3	120.4	1.23	12.3	3.0	16	AL
Y9WVPW	125.2	121.2	124.4	122.1	123.2	1.60	7.6	1.9	118.0	0.70	8.3	5.0	16	XX
YCVADM_AL	133.0 X	120.0	117.6	120.9	122.9	1.52	7.6	6.9 H	119.6	1.05	9.5	4.7	16	AL
YY7CA3_AL	113.8 L	111.6	114.7	116.7 L	114.2	-0.39	4.9	2.1	109.9	-1.10	5.8	3.8	15	AL
ZVGKDQ	108.5	113.5	112.8	115.3	112.5	-0.76	8.0	2.9	109.9	-1.12	7.7	3.2	16	LA
ZYZEDX	118.1	126.3	119.7	118.1	120.6	1.01	9.2	3.9	118.8	0.87	8.7	3.1	16	LJ

Consensus (All Labs) Results										
Wk Mean	115.80	116.66	116.10	116.40	Month Mean	115.97		Grand Mean	114.88	
Avg SDr	7.79	9.06	8.41	8.69	Avg SD	8.55		Avg SD	8.69	
SD btwn Labs	5.38	6.70	5.33	5.20	SD btwn Labs	4.54		SD btwn Labs	4.49	
Labs Includ	47	48	47	48	SD btwn Wks	3.28		SD btwn Wks	3.49	
Labs Exclcd	1	0	1	1	Labs Includ	47		Labs Includ	48	
Labs not Rcvd	1	1	1	0						

Key to Instrument Codes Reported by Participants

AH	Perkins Model AH	AK	L & W Autoline 300
AL	L & W Autoline 400	AX	Perkins Mullen Tester (model not specified)
LA	L&W Bursting Strength Tester	LC	L&W Autoline (205 Enrollment)
LJ	L&W Bursting Strength Tester J-Type	LZ	L&W (model not specified)
ME	Messmer Automatic Burst Tester ME-06	TB	TMI Monitor/Burst 1000
TP	Technidyne PROFILE/Plus	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 #679
April 2026

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	
2FKPFQ	71.4	74.5	71.7	72.1	72.4	-1.06	6.7	1.4	72.3	-1.09	5.8	1.2	12	XX
2ZYGR	72.1	73.8	77.8	72.6	74.1	-0.50	5.2	2.6	74.5	-0.25	5.2	2.2	8	TP
3L689R	76.5	79.0	80.5	76.5	78.1	0.91	6.3	2.0	77.4	0.92	7.0	1.9	12	XX
4P4J6R_AL	78.6	79.4	80.1	81.1	79.8	1.48	6.1	1.1	77.0	0.77	7.5	3.7	12	AL
76BLGX_AL	72.9	75.4	73.0	73.3	73.7	-0.63	6.2	1.2	74.3	-0.31	6.9	1.8	8	AL
84CXDR	71.5	72.6	73.0	72.1	72.3	-1.10	4.0	0.6	73.3	-0.70	4.0	1.3	12	LJ
88R4CM	76.0	72.3	75.0	75.2	74.6	-0.30	7.2	1.6	74.1	-0.39	6.1	2.1	12	LC
8BVYVQ_AL	76.2	77.2	78.2	74.9	76.6	0.39	4.4	1.4	75.7	0.24	4.7	1.5	8	AL
8GX82H	73.8	77.3	78.4	79.6	77.3	0.62	6.4	2.5	76.8	0.69	6.7	2.5	12	LA
8LCL4Q	76.7	72.7	78.5	75.9	76.0	0.16	6.0	2.4	72.5	-1.01	5.8	3.3	12	LA
92ZHJR	72.4 H	73.8	72.5	80.5	74.8	-0.25	6.8	3.9	72.9	-0.86	6.4	3.6	12	LC
98QTTP	81.2	80.4	81.2	81.4 L	81.1	1.91	4.0	0.4	76.2	0.46	5.3	4.2	12	AH
9JJCAF_AL	74.2	75.3	72.7	68.1 *	72.6	-1.00	3.6	3.2	71.9	-1.25	5.0	2.6	12	AL
9RVB4R	75.4	75.2	75.2	75.6 L	75.4	-0.05	2.7	0.2 L	75.9	0.31	1.9	0.5 L	12	LA
B2DQMC_AL	72.8	73.1	73.0	74.4	73.4	-0.74	5.9	0.7	71.8	-1.30	5.6	2.4	12	AL
BD88CD	69.3	71.1	69.1	73.3	70.7	-1.65	6.3	2.0	70.7	-1.73	6.3	1.8	8	LZ
BG328T	72.0	79.2	72.4	72.6	74.0	-0.50	6.5	3.4	74.5	-0.23	6.4	2.7	12	LA
BUBHFJ	84.6 *	77.0	76.6	76.1 H	78.6	1.06	8.4	4.0	80.2	2.02 *	8.2	3.4	12	AX
BZGBAE	75.1	77.3 L	75.8	76.3	76.1	0.21	3.0	0.9	76.6	0.62	2.7	1.0	12	XX
F2DK6R	80.5	77.5	81.3	79.2	79.6	1.42	5.7	1.7	77.7	1.04	5.8	4.1	12	ME
G7QK64_AL	76.8	75.2	73.7	70.4	74.0	-0.50	4.2	2.7	73.0	-0.81	3.3	2.4	8	AL
HJRGZB	71.5	81.5	72.1	73.5	74.7	-0.29	6.0	4.6	75.4	0.12	5.8	3.4	12	LC
HJRGZB_AL	76.3	81.5	79.3	73.1	77.6	0.71	6.2	3.6	76.7	0.65	5.6	2.3	12	AL
HKMY3C	68.1 H	76.8	72.8	73.9	72.9	-0.89	7.2	3.6	73.6	-0.58	5.8	2.6	8	LC
HKMY3C_AL	76.1	72.9	77.3	75.1	75.3	-0.06	5.6	1.9	76.2	0.43	5.9	2.1	8	AK
JKWMEN	76.5	75.7	78.0	80.5	77.7	0.75	4.3	2.1	78.4	1.33	4.3	3.0	12	LA
KP8ZWM_AL	81.0	79.3	80.4	76.7	79.3	1.33	4.5	1.9	78.4	1.32	4.7	1.6	12	AL
KT7CRM	81.6	82.5 *	81.5	82.2 *	81.9	2.22 *	5.4	0.5	80.9	2.32 *	5.0	2.0	12	TX
NPFC3G	73.5	73.6	76.2	74.1	74.4	-0.39	5.0	1.2	73.3	-0.70	5.0	1.8	12	LA
NTVGZC_AL	74.3	73.9	70.4	73.1	72.9	-0.88	5.4	1.8	73.3	-0.71	5.3	3.0	12	AL
NUA724_AL	79.4	74.7	73.8	71.6	74.9	-0.21	5.0	3.3	74.8	-0.09	5.0	2.2	12	AL
PQ6W9D_AL	75.2	71.8	71.8	74.4	73.3	-0.76	5.3	1.8	71.5	-1.44	5.2	2.0	12	XX
PT9TU2	76.5	71.6	75.2	73.7	74.3	-0.43	7.1	2.1	77.7	1.03	6.0	2.9	12	LA
Q92KE3	74.7	72.8	79.6	75.7	75.7	0.07	8.0	2.9	77.4	0.92	8.1	2.1	12	XX
QGUVMC_AI	No DATA	No DATA	No DATA	78.0	78.0	0.86	3.4	0.0	75.9	0.31	4.3	3.0	6	AL



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

Report #679
April 2026

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
QYT8XY	77.0	74.2	76.2	76.6	76.0	0.17	4.5	1.2	76.0	0.36	4.5	1.2	4	XX
RGEXUC	76.9	74.5 H	75.8	75.9	75.8	0.10	6.9	1.0	77.4	0.93	5.7	1.9	12	LA
RGEXUC_AL	69.4	76.1	73.0	76.8	73.8	-0.58	7.1	3.4	74.0	-0.43	5.5	2.0	12	AL
TFDKMA	79.3	74.0	75.0	71.8	75.0	-0.16	5.4	3.1	75.5	0.16	5.9	2.1	12	TB
TG94NC_AL	68.3	69.7 H	70.9	70.8	69.9	-1.92	6.3	1.2	71.0	-1.62	5.6	2.2	12	AL
W6YX3Y	80.4	80.0	75.6	75.6	77.9	0.82	5.8	2.7	75.3	0.09	6.1	2.4	12	AH
X2E32R	71.7 H	71.2	71.1	72.0	71.5	-1.38	7.0	0.4	71.2	-1.53	6.7	1.9	12	XX
XNA7F6	72.0	71.7	71.8	70.7	71.6	-1.35	4.6	0.6	72.2	-1.15	4.1	2.3	12	LC
Y4FPR2_AL	74.3	75.3	76.4	72.9	74.7	-0.26	6.0	1.5	76.6	0.62	6.0	2.4	12	XX
Y9WVPW	83.6 *	81.3	85.0 *	82.9 *	83.2	2.65 *	5.6	1.5	77.8	1.08	5.5	4.3	12	XX
YCVADM_AL	74.2	81.5	76.9	77.0	77.4	0.65	5.0	3.0	74.9	-0.06	5.5	2.8	12	AL
YY7CA3_AL	77.1	78.0	77.0	76.5	77.2	0.57	4.1	0.6	77.6	1.00	3.9	1.7	12	AL
ZVGKDQ	69.6	75.1	72.3	67.9 *	71.2	-1.47	5.2	3.1	69.9	-2.05 *	5.1	2.6	12	LA
ZYZEDX	74.1	80.5	74.5	75.5	76.2	0.23	5.7	3.0	76.5	0.56	5.5	2.1	12	LJ

Consensus (All Labs) Results									
Wk Mean	75.27	75.85	75.62	75.09	Month Mean	75.49	Grand Mean	75.08	
Avg SDr	5.85	5.62	5.65	5.83	Avg SD	5.71	Avg SD	5.60	
SD btwn Labs	3.87	3.30	3.50	3.42	SD btwn Labs	2.90	SD btwn Labs	2.52	
Labs Includ	48	48	48	49	SD btwn Wks	2.32	SD btwn Wks	2.50	
Labs Exclcd	0	0	0	0	Labs Includ	49	Labs Includ	49	
Labs not Rcvd	1	1	1	0					

Key to Instrument Codes Reported by Participants

AH	Perkins Model AH	AK	L & W Autoline 300
AL	L & W Autoline 400	AX	Perkins Mullen Tester (model not specified)
LA	L&W Bursting Strength Tester	LC	L&W Autoline (207 Enrollment)
LJ	L&W Bursting Strength Tester J-Type	LZ	L&W (model not specified)
ME	Messmer Automatic Burst Tester ME-06	TB	TMI Monitor/Burst 1000
TP	Technidyne PROFILE/Plus	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 #679
April 2026

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	
2FKPFQ	97.9	96.4 H	97.8	97.9	97.5	-0.30	4.6	0.8	100.5	0.95	4.3	4.5	16	XX
2ZYGR	97.1	99.4	99.8	99.3	98.9	0.09	2.7	1.2	99.6	0.59	2.9	2.5	16	TX
3UJTHW	104.0	103.0	101.7	101.2	102.5	1.09	2.2	1.3	101.2	1.19	2.4	1.6	16	LD
4P4J6R	96.6	98.0	95.7	96.5	96.7	-0.52	3.1	1.0	96.1	-0.72	2.9	1.3	16	LD
6UUF63	105.7	103.7	103.5	105.4	104.6	1.68	3.3	1.1	103.8	2.18 *	3.3	3.9	15	TU
6ZZ9YY	105.4	106.0	101.8	106.2	104.9	1.75	3.2	2.0	98.1	0.03	3.1	4.4	16	LD
76BLGX	96.2	98.6	98.8	102.0	98.9	0.09	3.7	2.4	98.9	0.34	3.7	2.4	4	LD
7WGDXR	96.1	97.7	95.2	98.0	96.8	-0.50	3.5	1.3	98.1	0.02	3.9	1.8	16	EM
84CXDR	98.3	97.3	97.7	97.2	97.7	-0.26	2.6	0.5	98.3	0.09	2.5	0.6 L	16	LD
88R4CM	106.2 *	106.3	105.9	106.7 *H	106.3	2.15 *	4.7	0.4	101.8	1.44	3.9	3.1	16	MB
8BVYVQ	72.0 XH	71.7 X	71.3 XH	73.9 XH	72.2	-7.34 X	6.4	1.1	68.2	-11.20 X	4.8	2.6	16	LD
8GX82H	99.4	96.4	100.6	98.2	98.7	0.03	2.7	1.8	97.4	-0.21	2.7	1.6	16	LD
8LCL4Q	100.9	99.7	97.4	95.9	98.5	-0.02	3.4	2.3	99.2	0.45	3.5	2.5	16	LD
8VE76X	98.8	99.9	100.7	100.4	99.9	0.38	2.6	0.8	99.9	0.71	2.8	1.0	16	LG
92ZHJR	93.9	95.1	96.3	96.8	95.5	-0.85	2.3	1.3	97.6	-0.15	2.9	2.6	16	LD
9RVB4R	100.8	101.5	103.0	101.9	101.8	0.90	2.1	0.9	97.4	-0.23	1.1	2.7	16	TU
BD88CD	101.9	100.4	101.4	101.4	101.3	0.76	2.8	0.6	100.6	0.99	3.9	3.5	16	XX
BUBHFJ	84.9 XH	87.2 *H	88.1 *H	90.1 *	87.6	-3.06 X	6.6	2.2	87.9	-3.80 X	6.7	2.1	8	LD
BZGBAE	77.0 XH	79.6 X	77.4 X	75.5 X	77.4	-5.91 X	4.2	1.7	79.5	-6.94 X	4.6	2.7	16	MZ
F2DK6R	99.7	96.9	96.6	97.7	97.7	-0.24	2.9	1.4	99.3	0.47	3.6	2.5	16	LZ
HJRGZB	103.5	106.4 *	109.2 *	101.5	105.2	1.83	3.8	3.4	106.4	3.14 X	3.8	3.8	16	LD
JKWMEN	96.2	93.8	93.2	93.6	94.2	-1.22	3.7	1.4	92.5	-2.06 *	3.6	2.4	16	LC
NPFC3G	97.0	97.3 H	99.0	100.7	98.5	-0.02	4.2	1.7	97.2	-0.30	3.5	1.6	16	LD
P8T8WZ	96.4	95.2	94.9	95.3	95.5	-0.87	3.0	0.7	96.3	-0.66	3.2	0.8 L	16	EM
PQ6W9D	95.5	96.3	96.0	96.9	96.2	-0.67	2.1	0.6	96.4	-0.61	2.5	0.7 L	16	LD
QGUVMC	97.3	98.1	96.4	96.2	97.0	-0.44	3.2	0.9	96.5	-0.57	3.6	1.7	16	LC
RCFKA9	99.3	99.5	99.4	99.1	99.3	0.21	2.8	0.2 L	99.3	0.50	2.7	1.6	16	TH
RGEXUC	101.7	99.2	101.1	102.7	101.2	0.73	2.8	1.5	99.7	0.64	3.2	1.6	16	LD
TFDKMA	100.0	99.9	99.7	99.6	99.8	0.35	2.3	0.2 L	96.1	-0.73	3.7	3.7	14	LD
TG94NC	99.9	100.2	98.9	100.2 L	99.8	0.34	2.0	0.6	98.7	0.25	2.6	1.0	16	LD
U7G6BB	90.9 *	88.6 *	90.1 *	88.8 *	89.6	-2.50 *	3.1	1.1	92.5	-2.08 *	2.7	2.2	16	LD
W6YX3Y	98.9	98.8	97.1	100.9	98.9	0.10	2.8	1.6	99.0	0.37	2.7	1.5	16	LC
X3Q6K7	92.1	91.5	92.0	91.7	91.8	-1.88	2.3	0.3 L	92.8	-1.94 *	2.7	1.7	16	LC
XNA7F6	91.3	96.7	98.5	94.9	95.4	-0.89	3.5	3.1	95.3	-1.01	3.6	3.1	16	LD
Y4FPR2	86.3 XH	103.9	98.4	91.3 H	95.0	-1.00	6.5	7.7 H	95.6	-0.92	5.8	11.4 H	16	LZ



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

Report #679
April 2026

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	
Y9WVPW	102.3	97.0	97.6	98.2	98.8	0.06	3.8	2.4	102.0	1.51	4.8	2.7	16	LD
YY7AKY	99.6	97.8 H	105.3	103.4	101.5	0.83	5.6	3.5	101.0	1.14	6.1	8.0 H	16	MB
Z4YT2M	95.9 L	95.4 L	94.9 L	94.2 L	95.1	-0.96	0.5	0.7	95.1	-1.09	0.5	0.7 L	4	RS
ZKKG9W	82.9 XH	78.2 X	79.2 X	77.8 X	79.5	-5.31 X	5.1	2.3	87.4	-3.98 X	4.6	8.9 H	8	TH
ZY2CNT	94.4	98.4	97.7	100.5	97.7	-0.23	3.2	2.6	96.5	-0.58	3.3	1.9	16	LC

Consensus (All Labs) Results												
Wk Mean	98.60	98.31	98.41	98.46	Month Mean	98.57	Grand Mean	98.01				
Avg SDr	3.04	3.69	3.35	3.42	Avg SD	3.33	Avg SD	3.42				
SD btwn Labs	3.85	4.20	4.18	4.22	SD btwn Labs	3.59	SD btwn Labs	2.66				
Labs Incl	35	37	37	37	SD btwn Wks	2.04	SD btwn Wks	3.31				
Labs Excl	5	3	3	3	Labs Incl	36	Labs Incl	35				
Labs not Rcvd	0	0	0	0								

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
LZ L&W Crush Tester (model not specified)	MB Messmer Buchel K440
MZ Messmer Buchel (model not specified)	RS Regmed Digital Crush Tester CT-2000
TH TMI Compression Tester, Model 17-76	TU TMI Universal Crush Tester (TMI K440)
TX TMI Digital Crush Tester (model not specified)	XX Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program
Analysis 217

Report #679
April 2026

Ring Crush, 31 lb Linerboard - 31K1

TAPPI Official Test Method T822

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	
2FKPFQ	69.9 H	69.0	68.2 *	69.8	69.2	-1.48	4.7	0.8	73.8	-0.05	4.3	3.7	12	XX
2ZYGR	75.1	74.4	73.9 L	75.1	74.6	0.18	2.1	0.6	74.4	0.26	2.3	0.8	8	TH
3UJTHW	77.9	78.9 L	80.3 *	80.8 *	79.5	1.65	1.8	1.3	79.0	2.39 *	2.0	1.3	12	LD
4P4J6R	73.6	76.6	75.7	77.2	75.8	0.53	2.7	1.6	74.5	0.30	2.9	1.9	12	LD
6UUF63	84.9 X	82.8 *	77.0	78.5	80.8	2.06 *	3.4	3.7	81.0	3.33 X	3.8	3.2	12	TU
6ZZ9YY	77.4	78.9	77.4	76.1	77.5	1.04	2.5	1.2	74.7	0.38	2.7	2.3	12	LD
76BLGX	74.1	76.2	72.9	73.1	74.0	-0.01	2.8	1.5	74.8	0.44	3.0	2.1	8	LD
7WGDXR	65.9 *	67.9 H	70.7	63.6 X	67.0	-2.15 *	3.4	3.0	69.5	-2.05 *	3.5	2.6	12	EM
84CXDR	76.7	77.7	75.6	76.1	76.5	0.75	2.6	0.9	76.2	1.07	2.9	0.9	12	LD
88R4CM	82.4 *H	81.2 H	81.6 *	80.1 *H	81.3	2.22 *	5.9	0.9	78.9	2.33 *	4.6	2.2	12	MB
8BVYVQ	54.0 XH	55.3 XH	53.8 XH	56.6 X	54.9	-5.86 X	7.9	1.3	52.5	-9.92 X	7.3	2.0	12	LD
8GX82H	72.5	73.9	75.1	74.2	73.9	-0.05	2.7	1.1	73.4	-0.23	2.7	1.1	12	LD
8LCL4Q	74.7	75.6	72.8	73.1	74.0	-0.01	3.3	1.3	74.3	0.20	3.1	1.3	12	LD
8VE76X	74.5	76.2	74.5	75.7	75.2	0.36	2.1	0.9	75.8	0.89	2.2	1.2	12	LG
92ZHJR	73.2	76.0	71.4	73.1	73.4	-0.19	2.0	1.9	73.0	-0.38	2.7	1.4	12	LD
9RVB4R	72.7	72.9	73.0	77.4	74.0	-0.02	2.8	2.3	74.1	0.09	1.7	1.2	12	TU
BD88CD	77.3	77.3	75.4	75.0	76.2	0.66	2.4	1.2	73.2	-0.32	3.3	3.0	12	LZ
BUBHFJ	58.1 XH	66.2 *H	65.2 XH	65.1 XH	63.7	-3.19 X	6.3	3.7	63.7	-4.75 X	6.3	3.7	4	LD
BZGBAE	59.5 XH	60.8 XH	58.1 X	58.1 XH	59.1	-4.57 X	5.8	1.3	62.5	-5.29 X	5.9	3.6	12	MZ
F2DK6R	75.6	73.2	73.7	72.9	73.9	-0.06	3.0	1.2	74.2	0.15	3.4	1.1	12	LZ
HJRGZB	76.2	76.4	77.8	78.0	77.1	0.93	3.2	0.9	78.2	2.01 *	2.7	3.3	12	LD
JKWMEN	67.3	68.3	71.1	71.7	69.6	-1.37	2.5	2.1	69.7	-1.96 *	2.7	2.4	12	LC
NPFC3G	72.4	74.3	75.3	75.3	74.3	0.08	3.0	1.4	73.9	0.02	2.9	1.3	11	LD
P8T8WZ	72.8	72.9	72.2	73.5	72.8	-0.37	3.0	0.5	73.8	-0.04	3.0	1.6	12	EM
PQ6W9D	74.4	73.6	75.2	74.4	74.4	0.09	2.7	0.7	73.9	0.03	2.3	0.8	12	LD
QGUVMC	71.2	71.7	72.6	71.6	71.8	-0.70	4.1	0.6	72.5	-0.63	3.5	1.5	12	LC
RCFKA9	74.6	74.6	75.2	76.2	75.2	0.33	2.1	0.8	74.0	0.04	2.0	1.4	12	TH
RGEXUC	76.3	79.0	77.0	76.4	77.2	0.95	3.0	1.2	76.0	0.98	3.0	1.8	12	LD
TFDKMA	73.5 L	73.4 L	73.3 L	73.4 L	73.4	-0.21	1.1	0.1 L	73.2	-0.31	2.9	2.6	12	LC
TG94NC	75.9	75.3	75.9	75.0	75.5	0.45	3.3	0.5	75.2	0.60	2.9	0.7 L	12	LD
U7G6BB	68.5	66.9	68.5 *	68.9	68.2	-1.79	2.3	0.9	70.9	-1.39	2.3	2.9	12	LD
W6YX3Y	74.9	74.8	74.5	74.0	74.6	0.15	2.4	0.4	74.7	0.39	2.7	0.7 L	12	LC
X3Q6K7	69.6	70.1	69.9	69.5	69.7	-1.32	2.4	0.3 L	72.0	-0.88	2.7	1.7	12	LC
XNA7F6	69.8	71.6	75.1	71.4	72.0	-0.64	3.3	2.2	72.0	-0.89	3.2	2.1	12	LD
Y4FPR2	68.8	76.4	77.4 H	55.1 XH	69.4	-1.42	7.3	10.3 H	72.8	-0.47	5.8	9.6 H	12	LZ



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

Report #679
April 2026

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
Y9WVPW	73.2	70.5 H	72.2	70.1	71.5	-0.78	4.5	1.5	72.1	-0.83	4.3	2.0	12	LD
YY7AKY	79.3	80.5	75.3	71.1 H	76.5	0.76	4.8	4.3	72.4	-0.70	6.9	8.5 H	12	MB
Z4YT2M	71.4 L	72.5 L	71.4 L	72.1 L	71.9	-0.67	0.4	0.5	71.9	-0.93	0.4	0.5 L	4	RS
ZKKG9W	61.8 XH	59.8 XH	59.4 XH	60.9 X	60.5	-4.15 X	5.3	1.1	60.5	-6.22 X	5.3	1.1	4	TH
ZY2CNT	73.6	74.0	76.0	73.3	74.2	0.05	3.0	1.2	72.8	-0.48	2.8	1.4	12	LC

Consensus (All Labs) Results														
Wk Mean	73.63	74.36	74.30	74.24	Month Mean	74.06	Grand Mean	73.87						
Avg SDr	3.09	2.96	3.54	3.30	Avg SD	3.25	Avg SD	3.24						
SD btwn Labs	3.45	3.91	2.92	2.92	SD btwn Labs	3.27	SD btwn Labs	2.15						
Labs Incl	35	37	36	34	SD btwn Wks	2.31	SD btwn Wks	2.84						
Labs Excl	5	3	4	6	Labs Incl	36	Labs Incl	35						
Labs not Rcvd	0	0	0	0										

Key to Instrument Codes Reported by Participants

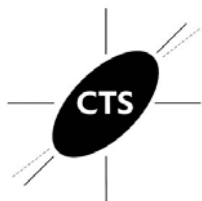
EM	Emerson 1200	LC	L&W Crush Tester 48
LD	L&W Crush Tester 248	LG	L&W 753
LZ	L&W Crush Tester (model not specified)	MB	Messmer Buchel K440
MZ	Messmer Buchel (model not specified)	RS	Regmed Digital Crush Tester CT-2000
TH	TMI Compression Tester, Model 17-76	TU	TMI Universal Crush Tester (TMI K440)
XX	Instrument make/model not specified by lab		



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

Report #679
April 2026

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	
3UJTHW	27.6 *	26.3	27.3 *	26.8	27.0	2.27 *	1.8	0.6	26.7	1.94 *	1.7	0.6	16	LH
4P4J6R_AL	No DATA	23.3	24.4	22.6	23.4	-0.82	2.1	0.9	23.9	-0.81	2.4	0.9	9	AL
6UUF63	24.9	23.7	24.7	25.1	24.6	0.19	2.0	0.6	24.7	-0.02	2.1	0.8	16	LA
76BLGX_AL	25.8	25.2	25.8 L	26.7	25.9	1.29	1.7	0.6	25.9	1.10	1.7	0.6	4	AL
88R4CM	25.0	23.8	24.3	25.6	24.7	0.24	2.1	0.8	24.7	0.00	1.9	0.9	16	LA
8BVYVQ	24.9	25.0	24.8	24.6	24.8	0.39	1.9	0.2	24.0	-0.69	1.8	0.6	16	LY
8BVYVQ_AL	24.3	24.8	24.0	23.8	24.2	-0.14	2.0	0.5	24.4	-0.29	1.9	0.6	16	AL
8GX82H	23.3	24.3	23.7	24.0	23.8	-0.49	2.0	0.4	23.5	-1.23	1.8	0.4	16	LY
8LCL4Q	24.8	23.5	23.7	23.8	24.0	-0.37	1.7	0.6	24.3	-0.40	1.8	0.8	16	LY
8VE76X	24.7	25.3	24.6	25.3	25.0	0.53	1.7	0.4	25.3	0.53	1.9	0.5	16	BK
92ZHJR	23.8	24.5	23.2	24.0	23.9	-0.44	1.6	0.5	24.6	-0.17	1.8	0.7	16	LA
9JJCAF_AL	24.6	24.6	25.5 L	25.5	25.1	0.58	1.5	0.5	25.3	0.59	1.5	0.5	16	AL
9RVB4R	22.3 L	23.0	23.4	23.4	23.0	-1.18	1.5	0.5	24.6	-0.16	1.7	1.0	16	XX
AADQLE	24.4	24.7	24.2 L	25.0	24.5	0.14	1.4	0.3	24.8	0.10	1.4	0.3 L	16	LH
B2DQMC_AL	31.4 X	31.0 X	30.3 X	31.6 X	31.1	5.81 X	2.5	0.6	31.0	6.06 X	2.4	1.3	16	AL
BD88CD	24.0	24.5	25.2 L	25.0	24.7	0.27	1.9	0.5	25.9	1.11	2.4	1.5	16	LZ
BG328T	24.4	23.6	24.8	24.3	24.3	-0.09	1.8	0.5	24.4	-0.31	1.8	0.7	16	LY
BUBHFJ	25.5 L	25.4 L	25.0 L	23.7 L	24.9	0.48	0.0	0.8	25.2	0.43	0.0	0.8	16	LH
BZGBAE	24.6	22.4	23.8	23.0	23.4	-0.81	1.8	1.0	24.6	-0.16	2.1	1.2	16	XX
D4BRZE	25.8	25.4 L	25.1 L	26.1	25.6	1.07	1.3	0.4	25.4	0.63	1.9	0.8	16	LA
D97LVU	23.5	23.1	23.0 L	23.5	23.3	-0.97	1.8	0.3	23.7	-0.99	1.8	0.6	16	LH
DJJ6UG	25.5	25.6	25.6 L	25.5	25.5	0.99	1.8	0.1 L	25.7	0.95	2.1	0.9	12	XX
DZQYNB	24.9	23.0	25.5	23.5	24.2	-0.12	1.9	1.2	24.7	-0.08	1.8	0.8	16	LU
E4KFCP	24.4	23.2	24.2	23.9	23.9	-0.40	2.1	0.5	23.8	-0.96	1.8	0.5	13	LW
F2DK6R	25.5	25.2	25.2 L	25.7	25.4	0.90	1.7	0.2	26.0	1.21	1.9	1.0	12	LH
G7QK64_AL	49.0 XL	44.0 XL	52.0 XL	50.0 XL	48.8	21.20 X	0.0	3.4 H	36.5	11.41 X	0.0	13.3 H	8	AL
HJRGZB	24.7	23.5	24.3	24.5	24.2	-0.12	2.2	0.5	25.1	0.32	2.0	1.1	16	LZ
HJRGZB_AL	49.1 XL	47.1 XL	49.8 XL	49.5 XL	48.9	21.30 X	0.0	1.2	47.7	22.30 X	0.0	1.7	16	AL
HKMY3C_AL	26.3	33.7 XH	27.0 *	26.8	28.5	3.54 X	2.6	3.5 H	25.3	0.53	1.9	2.9 H	16	AK
JKWMEN	25.6	24.0	25.2 L	24.8 L	24.9	0.45	1.7	0.7	25.0	0.22	1.7	0.5	16	LA
KP8ZWM_AL	23.9	23.8	24.4 L	24.8	24.2	-0.17	1.9	0.5	24.3	-0.40	1.9	0.6	15	AL
LMX9JY	22.8	23.6	22.2 *	24.7	23.3	-0.94	1.8	1.1	23.4	-1.29	2.4	0.7	16	LH
NPFC3G	25.2	24.7	24.2	22.5 L	24.1	-0.21	1.8	1.2	24.2	-0.54	1.7	0.7	16	LA
NTVGZC_AL	26.8 H	25.8 H	26.8 *H	25.9 H	26.3	1.70	7.7	0.5	26.4	1.63	4.2	1.3	16	AL
NUA724_AL	24.4	26.1	24.6	24.9	25.0	0.54	2.2	0.8	25.3	0.54	2.2	0.7	16	AL



Containerboard Interlaboratory Testing Program

Analysis 223

Report #679

April 2026

STFI, 42 lb Linerboard - 42N1

TAPPI Official Test Method T826

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	
PQ6W9D_AL	23.5	24.0	23.5 H	23.4	23.6	-0.67	6.0	0.2	23.8	-0.89	3.4	0.4	16	XX
PT9TU2	26.6	28.1 XL	25.6	27.3 *	26.9	2.19 *	1.5	1.0	26.6	1.78	1.5	1.0	16	LA
Q92KE3	22.6	23.8	22.6	22.2	22.8	-1.37	2.1	0.7	23.9	-0.83	2.0	1.0	16	XX
QGUVMC	No DATA	No DATA	No DATA	24.7	24.7	0.26	1.5	0.0	24.5	-0.23	1.8	0.8	12	LU
QLPMV9	21.1 *	22.3	22.2 *	21.3 *	21.7	-2.31 *	1.9	0.6	23.7	-1.04	1.8	1.9	16	XX
RGEXUC_AL	24.6	23.4	24.2	26.2	24.6	0.19	1.9	1.2	24.4	-0.30	2.0	0.9	10	AL
TFDKMA	24.0	22.8	No DATA	25.2	24.0	-0.33	1.7	1.2	24.9	0.18	2.2	1.0	13	LW
TG94NC_AL	23.1 H	25.5 L	24.7 L	24.4 L	24.4	0.05	1.9	1.0	24.3	-0.39	1.7	0.8	16	AL
U7G6BB	17.8 XL	22.7	23.6	24.2	22.1	-2.02 *	2.1	2.9 H	27.5	2.67 *	2.0	7.4 H	16	LW
VKXG4W	23.0 L	No DATA	No DATA	No DATA	23.0	-1.20	1.1	0.0	22.8	-1.90	0.9	0.6	4	LH
W6YX3Y	23.2	24.0	24.9	24.6	24.2	-0.17	1.8	0.7	24.1	-0.60	1.9	0.6	16	LU
WAE3ZU	23.8	23.3	23.0 L	23.0	23.3	-0.98	1.7	0.4	23.3	-1.44	1.7	0.4 L	4	LH
X2E32R	25.2	24.9	24.6 L	23.7	24.6	0.19	1.6	0.6	24.7	-0.01	1.9	0.5	16	LH
X3Q6K7	23.2	22.8	22.4 L	22.5	22.7	-1.45	1.6	0.3	22.6	-2.10 *	1.6	0.5	16	LY
XNA7F6	24.3	22.9	23.9 L	24.2	23.8	-0.49	2.0	0.6	23.9	-0.83	2.2	0.9	16	LA
YCVADM_AI	26.7	27.0 *	28.4 X	27.4 *	27.4	2.60 *	2.1	0.7	27.2	2.41 *	2.2	0.9	16	AL
YY7AKY	24.8	25.0	25.8 L	26.3	25.5	0.96	1.6	0.7	25.1	0.38	1.9	1.1	16	LA
YY7CA3	23.8	24.7 L	24.0 L	24.1	24.1	-0.22	1.3	0.4	24.8	0.08	1.5	0.9	14	LU
ZVGKDQ	25.5	25.5	24.0	25.6	25.2	0.68	2.1	0.8	25.1	0.35	2.2	0.7	16	LH
ZYZEDX	23.7	23.4	24.1	23.2	23.6	-0.67	2.2	0.4	24.2	-0.57	2.3	1.0	16	LH

Consensus (All Labs) Results									
Wk Mean	24.50	24.23	24.42	24.57	Month Mean	24.38	Grand Mean	24.74	
Avg SDr	2.11	2.10	2.67	2.21	Avg SD	2.25	Avg SD	2.00	
SD btwn Labs	1.24	1.12	1.14	1.35	SD btwn Labs	1.15	SD btwn Labs	1.03	
Labs Incl	49	48	48	51	SD btwn Wks	0.79	SD btwn Wks	1.38	
Labs Excl	4	5	4	3	Labs Incl	51	Labs Incl	52	
Labs not Rcvd	2	2	3	1					

Key to Instrument Codes Reported by Participants

AK	L & W Autoline 300	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)	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 #679
April 2026

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	
3UJTHW	21.5	20.8	L 21.0	21.4	21.2	0.89	1.3	0.3	21.3	0.90	1.3	0.4	12	LH
4P4J6R_AL	No DATA	19.9	18.6 *	20.4	19.6	-1.18	1.7	0.9	19.7	-1.16	1.4	0.6	7	AL
6UUF63	22.0	20.0	21.3	21.1 L	21.1	0.77	1.6	0.8	21.5	1.20	1.5	0.8	12	LA
76BLGX_AL	21.4	20.9	21.0	21.9	21.3	1.00	1.7	0.5	20.8	0.28	1.6	0.7	8	AL
88R4CM	21.2	21.0	L 21.2	L 20.8	21.1	0.74	1.1	0.2	21.0	0.56	1.4	0.5	12	LA
8BVYVQ	20.2	20.0	20.5	20.3	20.2	-0.38	1.5	0.2	19.9	-1.00	1.6	0.4	12	LU
8BVYVQ_AL	20.2	19.9	20.5	20.9	20.4	-0.20	2.0	0.4	20.0	-0.74	1.8	0.4	12	AL
8GX82H	19.7	19.4	19.3	19.2 L	19.4	-1.48	1.5	0.2	19.7	-1.24	1.3	0.4	12	LY
8LCL4Q	20.2	20.2	L 20.4	20.5	20.3	-0.26	1.4	0.1	20.3	-0.35	1.4	0.4	12	LY
8VE76X	20.7	20.3	21.3	21.3	20.9	0.48	1.7	0.5	20.7	0.14	1.5	0.5	12	BK
92ZHJR	20.1 L	20.4 L	19.5 L	19.5	19.9	-0.86	1.1	0.5	20.3	-0.43	1.3	0.5	12	LA
9JJCAF_AL	21.1	21.1	21.3	21.8	21.3	1.10	1.3	0.3	21.6	1.33	1.2	0.6	12	AL
9RVB4R	17.7 XL	17.9 *	17.9 X	18.2 *L	17.9	-3.46 X	1.2	0.2	19.5	-1.52	1.1	1.1	12	XX
AADQLE	20.3	20.8	20.6	20.6	20.6	0.05	1.3	0.2	20.7	0.11	1.3	0.4	12	LH
B2DQMC_AL	26.6 X	26.5 X	26.2 X	26.2 X	26.4	7.80 X	1.9	0.2	26.0	7.31 X	1.8	0.7	12	AL
BD88CD	20.4	20.6	20.3 L	20.7	20.5	-0.01	1.3	0.2	20.6	0.01	1.2	0.5	12	XX
BG328T	20.5 L	20.5	20.8	20.5	20.6	0.10	1.4	0.1	20.9	0.38	1.3	0.5	12	LU
BUBHFJ	21.9 L	21.7 L	21.1 L	21.1 L	21.5	1.25	0.0	0.4	21.3	0.93	0.0	0.7	12	LH
BZGBAE	19.7	19.1	19.4	19.3	19.4	-1.52	1.6	0.3	20.3	-0.39	1.6	0.9	12	XX
D4BRZE	20.6 L	21.4	20.1 L	21.2	20.8	0.41	1.1	0.6	20.9	0.44	1.2	0.5	12	XX
D97LVU	21.2	20.0	19.9 L	20.2	20.3	-0.26	1.4	0.6	20.3	-0.43	1.4	0.4	12	LH
DJJ6UG	21.4	20.2	20.3	20.9	20.7	0.24	1.8	0.6	20.9	0.39	1.8	0.5	8	XX
DZQYNB	20.0	19.6	20.5	21.5	20.4	-0.14	1.6	0.8	20.7	0.16	1.5	0.5	12	LU
E4KFCP	20.0	19.5 H	19.6	19.7	19.7	-1.09	2.3	0.2	19.6	-1.27	1.6	0.5	12	LW
F2DK6R	21.6	20.8	20.6	21.6	21.1	0.83	1.4	0.5	21.6	1.34	1.6	0.8	8	LH
G7QK64_AL	37.0 XL	37.0 XL	36.0 XL	39.0 XL	37.3	22.34 X	0.0	1.3 H	30.5	13.23 X	0.0	7.3 H	8	AL
HJRGZB	20.7	22.1	20.8	20.6	21.1	0.71	1.8	0.7	21.0	0.50	1.6	1.1	12	LZ
HJRGZB_AL	36.9 XL	39.4 XL	38.1 XL	38.4 XL	38.2	23.63 X	0.0	1.0	36.9	21.83 X	0.0	2.9 H	12	AL
HKMY3C_AL	20.7	22.2 H	21.1	21.6	21.4	1.18	2.1	0.6	21.2	0.76	1.9	0.6	8	AK
JKWMEN	20.2	19.8 L	21.6	20.3	20.5	-0.06	1.4	0.8	20.8	0.24	1.4	0.7	12	LA
KP8ZWM_AL	20.5 L	20.7	20.2	19.8	20.3	-0.32	1.4	0.4	20.4	-0.25	1.3	0.3	12	XX
LMX9JY	20.4	19.8	19.2 H	19.6	19.8	-1.01	2.1	0.5	19.8	-1.09	1.9	0.7	12	LH
NPFC3G	20.7	21.1 L	20.7	20.5 L	20.7	0.29	1.2	0.3	20.4	-0.30	1.3	0.7	12	LW
NTVGZC_AL	22.3 *H	21.1 H	21.0 H	22.4 H	21.7	1.57	7.4	0.8	22.4	2.40 *	4.5	0.8	12	AL
NUA724_AL	21.9	22.5 *	22.7 X	21.7 L	22.2	2.24 *	1.3	0.5	22.0	1.91	1.6	0.6	12	AL



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

Report #679
April 2026

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	
PQ6W9D_AL	20.0	19.9 L	19.6	20.0	19.9	-0.87	1.2	0.2	20.0	-0.78	1.2	0.3	12	XX
PT9TU2	22.2	20.3 L	19.5	21.5	20.9	0.49	1.4	1.2 H	20.6	-0.02	1.3	0.8	12	LA
Q92KE3	21.7	19.8	20.3	20.4 L	20.6	0.04	1.5	0.8	19.9	-0.91	1.6	0.7	12	XX
QGUVMC	No DATA	No DATA	No DATA	21.5	21.5	1.36	1.3	0.0	20.7	0.08	1.2	0.8	7	LU
QLPMV9	19.7	19.2	18.7 *	18.4 *	19.0	-2.05 *	1.4	0.6	20.2	-0.56	1.4	1.0	12	XX
RGEXUC_AL	20.8	19.3	21.2	20.0	20.3	-0.24	1.8	0.9	20.3	-0.34	1.7	0.7	6	AL
TFDKMA	20.2	19.3	No DATA	20.7	20.1	-0.60	1.9	0.7	21.2	0.75	1.7	1.0	11	LW
TG94NC_AL	19.5 L	20.6 L	20.3 L	19.7 L	20.0	-0.67	0.8	0.5	20.5	-0.17	1.1	0.8	12	AL
U7G6BB	21.2	18.2 *	20.3	21.1	20.2	-0.41	1.8	1.4 H	22.5	2.52 *	1.5	4.0 H	12	TT
VKXG4W	19.0 *L	No DATA	No DATA	No DATA	19.0	-2.03 *	1.0	0.0	18.8	-2.45 *	1.1	0.3	3	LH
W6YX3Y	20.7	20.2	20.3	20.0	20.3	-0.31	1.4	0.3	20.2	-0.48	1.4	0.3	12	LU
WAE3ZU	20.6	20.2	19.8	20.0	20.1	-0.52	1.4	0.3	20.1	-0.63	1.4	0.3	4	LH
X2E32R	21.1	20.9	20.8	20.8	20.9	0.51	1.5	0.1	20.9	0.38	1.3	0.2	12	LH
X3Q6K7	18.2 X	18.7	19.2	18.6 *	18.7	-2.46 *	1.5	0.4	18.9	-2.21 *	1.4	0.4	12	LZ
XNA7F6	19.8	22.1	21.1	22.0	21.3	1.00	1.7	1.1	20.6	-0.03	1.7	0.9	12	LA
YCVADM_AI	22.4 *	23.8 X	23.7 XL	23.2 *	23.3	3.67 X	1.5	0.6	23.4	3.77 X	1.7	0.4	12	AL
YY7AKY	21.6	21.0	21.9 *	22.3	21.7	1.59	1.5	0.6	20.9	0.37	1.6	0.8	12	LA
YY7CA3	20.7 L	21.2 L	20.3 L	20.4 L	20.6	0.15	0.8	0.4	21.1	0.73	1.2	1.2	9	LU
ZVGKDQ	20.5 H	20.9 L	20.8	21.9	21.0	0.66	1.8	0.6	21.0	0.50	1.6	0.5	12	LH
ZYZEDX	20.3	20.7	19.5	19.4	20.0	-0.71	1.7	0.6	20.2	-0.57	2.1	0.7	12	LH

Consensus (All Labs) Results									
Wk Mean	20.73	20.37	20.38	20.65	Month Mean	20.52	Grand Mean	20.59	
Avg SDr	1.75	1.93	1.83	1.89	Avg SD	1.84	Avg SD	1.59	
SD btwn Labs	0.79	0.97	0.76	1.04	SD btwn Labs	0.75	SD btwn Labs	0.75	
Labs Incl	48	49	46	51	SD btwn Wks	0.59	SD btwn Wks	0.86	
Labs Excl	5	4	6	3	Labs Incl	50	Labs Incl	51	
Labs not Rcvd	2	2	3	1					



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

Report #679
April 2026

Key to Instrument Codes Reported by Participants

AK	L & W Autoline 300	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 (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 #679
April 2026

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst
6UUF63	185.6	1.24	9.40	173.2	0.77	17.19	4	LA
76BLGX	131.4	-0.98	12.43	134.9	-1.04	9.00	4	LS
76BLGX_AL	155.2	-0.01	13.11	155.2	-0.08	0.00	1	AL
88R4CM	172.7	0.71	17.60	177.8	0.99	4.07	4	LA
8BVYVQ	157.5	0.09	20.58	159.8	0.14	2.43	4	XX
8BVYVQ_AL	140.9	-0.59	14.05	149.5	-0.35	12.25	4	AL
8GX82H	169.3	0.57	33.22 H	171.3	0.68	13.20	4	LS
8LCL4Q	196.5	1.68	14.42	192.5	1.68	12.97	4	EV
9JJCAF_AL	145.7	-0.39	17.29	125.4	-1.49	13.91	4	AL
B2DQMC_AL	93.0	-2.55 *	8.96	66.9	-4.25 X	45.40 H	4	AL
BZGBAE	172.2	0.69	15.57	173.9	0.80	13.28	4	EV
D4BRZE	167.6	0.50	23.53	161.2	0.20	9.57	4	LA
HJRGZB	0.3	-6.33 X	0.02 L	34.9	-5.76 X	69.16 H	4	LA
HJRGZB_AL	142.7	-0.51	17.49	142.9	-0.66	7.98	4	AL
KP8ZWM_AL	130.4	-1.02	9.60	124.6	-1.52	7.39	4	AL
NPFC3G	166.2	0.44	13.68	170.9	0.66	7.13	4	LA
NTVGZC_AL	130.7	-1.01	14.93	135.3	-1.02	4.88	4	AL
NUA724_AL	144.4	-0.44	17.08	140.1	-0.79	8.72	3	AL
PT9TU2	167.8	0.51	19.80	173.0	0.76	3.77	4	LS
TFDKMA	138.4	-0.69	13.91	132.6	-1.15	8.23	4	XX
U8DKM9	164.5	0.37	10.91	161.0	0.19	3.20	4	LS
VKXG4W	216.0	2.48 *	20.45	190.3	1.58	20.59	4	EV
X3Q6K7	155.2	0.00	16.53	171.3	0.68	17.24	4	EV
XNA7F6	122.7	-1.33	19.59	140.5	-0.77	13.15	4	LA
Y4FPR2_AL	121.4	-1.39	19.40	104.1	-2.49 *	40.81 H	4	AL
YCVADM_AL	165.9	0.43	25.17	170.5	0.64	3.26	4	AL
YY7AKY	171.8	0.67	25.10	173.2	0.77	9.08	4	LA
YY7CA3	160.9	0.23	11.00	168.6	0.55	11.59	4	EV
ZVGKDQ	160.1	0.20	13.31	165.1	0.39	10.02	4	EV
ZYZEDX	157.6	0.09	10.21	154.1	-0.13	13.12	4	LS

Consensus (All Labs) Results			
Month Mean	155.32	Grand Mean	156.88
Avg SD	17.37	Avg SD Months	13.30
SD btwn Labs	24.49	SD btwn Labs	21.18
Labs Incl	29	Labs Incl	28



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

Report #679
April 2026

Key to Instrument Codes Reported by Participants

AL	L & W Autoline 400	EV	Emveco Microgag 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 #679
April 2026

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst
76BLGX_AL	406.9	1.83	7.23	406.9	1.72	0.00	1	AL
7WGDXR	342.2	-1.89 *	5.18	343.8	-1.49	1.86	L 3	TS
8BVYVQ_AL	377.1	0.12	2.23	378.0	0.25	1.79	L 3	AL
8GX82H	368.1	-0.40	17.48	369.1	-0.20	3.67	3	XX
BUBHFJ	371.7	-0.20	10.19	366.9	-0.31	6.70	2	XX
BZGBAE	377.2	0.12	7.94	381.0	0.40	4.38	3	XX
HJRGZB_AL	365.4	-0.56	6.33	364.0	-0.46	1.36	L 3	AL
HKMY3C_AL	407.6	1.87 *	8.39	399.2	1.32	15.11	3	AK
NTVGZC_AL	364.8	-0.59	13.35	332.0	-2.09 *	53.41	H 3	AL
NUA724_AL	349.3	-1.48	8.73	352.5	-1.05	2.75	3	AL
PQ6W9D_AL	379.3	0.24	4.69	380.9	0.39	4.27	3	XX
RGEXUC_AL	381.1	0.35	13.47	381.5	0.43	5.06	3	AL
TG94NC_AL	372.1	-0.17	12.71	371.8	-0.07	1.12	L 3	AL
W6YX3Y	382.2	0.41	6.70	381.7	0.44	1.37	L 3	PP
YCVADM_AL	381.1	0.35	8.88	387.4	0.72	5.47	3	AL

Consensus (All Labs) Results			
Month Mean	375.07	Grand Mean	373.12
Avg SD	9.70	Avg SD Months	15.24
SD btwn Labs	17.39	SD btwn Labs	19.69
Labs Incd	15	Labs Incd	15

Key to Instrument Codes Reported by Participants

- | | |
|---|--|
| AK L & W Autoline 300
PP Technidyne Profile/Plus
XX Instrument make/model not specified by lab | AL L & W Autoline 400
TS TMI Monitor/Smoothness |
|---|--|



Containerboard Interlaboratory Testing Program
 Analysis 231
Internal Bond, 42 lb Linerboard - 42N1
 TAPPI Official Test Method T569

Report #679
April 2026

WebCode	Monthly Results				Cumulative Results					
	Mean	CPV	SD		Mean	CPV	SD Months	Months	Inst	
4P4J6R	143.6	1.12	5.90		143.6	1.10	1.80	3	HY	
76BLGX	110.1	-1.58	9.71		106.3	-1.40	4.98	3	TM	
8BVYVQ	134.8	0.41	9.52		132.3	0.34	4.05	3	TM	
8LCL4Q	146.5	1.35	14.39	H	137.3	0.68	8.29	3	HZ	
92ZHJR	129.8	0.01	4.92		126.5	-0.05	4.31	3	HZ	
B2DQMC	117.6	-0.98	6.11		119.1	-0.54	3.56	3	TM	
DM3ZVN	111.0	-1.51	6.52		109.9	-1.16	6.07	3	TM	
F2DK6R	130.4	0.05	1.14	L	130.4	0.21	0.00	1	HZ	
F6ZYX8	128.8	-0.07	3.72		128.0	0.06	4.62	3	TM	
JKWMEN	123.4	-0.51	5.68		127.1	-0.01	3.21	3	TM	
LMX9JY	130.0	0.02	2.55		133.7	0.43	4.17	3	HY	
NPFC3G	154.8	2.02 *	5.81		156.4	1.96 *	2.77	3	HY	
NUA724	127.8	-0.16	9.60		126.3	-0.06	4.69	3	TM	
PQ6W9D	145.0	1.23	4.18		141.5	0.96	3.06	3	HY	
QGUVMC	90.2	-3.19 X	12.56	H	90.2	-2.49 *	0.00	1	TM	
RGEXUC	135.1	0.43	3.88		136.2	0.61	2.41	3	TM	
TG94NC	134.0	0.34	4.69		135.1	0.53	2.39	3	LZ	
U8DKM9	132.5	0.22	4.59		136.5	0.62	3.47	3	HY	
W6YX3Y	134.0	0.35	3.49		136.0	0.59	2.02	3	HY	
XTPGT9	128.8	-0.07	5.40		123.1	-0.28	7.05	3	HZ	
Y4FPR2	122.4	-0.59	6.07		116.7	-0.70	11.77	H	3	TM
YCVADM	99.8	-2.41 *	3.83		99.5	-1.86	0.42	L	3	TM
YY7CA3	126.0	-0.30	4.95		120.7	-0.43	12.00	H	3	TM
ZVGDQ	137.4	0.62	1.82		140.5	0.89	3.00	3	TM	

Consensus (All Labs) Results			
Month Mean	129.72	Grand Mean	127.20
Avg SD	6.28	Avg SD Months	5.39
SD btwn Labs	12.40	SD btwn Labs	14.89
Labs Incl	23	Labs Incl	24

Consensus By Method

Test Method	Group Mean	SD btwn Group	Difference from Grand Mean	Labs Included
Scott Bond Type	128.91	12.35	0.82	16
Modified Scott Bond Mechanics	139.48	10.23	9.76	4



Containerboard Interlaboratory Testing Program
Analysis 231
Internal Bond, 42 lb Linerboard - 42N1
TAPPI Official Test Method T569

Report #679
April 2026

Key to Instrument Codes Reported by Participants

HY	Huygen Digitized Scott Internal Bond Tester	HZ	Huygen Internal Bond Tester with AccuPress
LZ	L&W (model not specified)	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 #679
April 2026

WebCode	Monthly Results			Cumulative Results			
	Mean	CPV	SD	Mean	CPV	SD Months	Months
4P4J6R	26.6	0.29	2.88	25.7	-0.01	0.74	4
76BLGX	26.8	0.36	2.59	26.0	0.10	0.81	4
88R4CM	23.9	-0.64	1.17	24.4	-0.57	2.29	4
8BVYVQ	25.8	0.02	1.30	24.3	-0.63	1.09	4
8GX82H	30.2	1.55	3.51	26.8	0.47	3.57	4
8LCL4Q	24.6	-0.40	2.79	29.0	1.45	3.34	4
B2DQMC	26.4	0.22	2.38	25.8	0.02	1.14	4
BUBHFJ	24.2	-0.54	0.45 L	24.4	-0.59	1.07	4
D97LVU	22.1	-1.27	4.19	25.2	-0.23	3.24	4
DDGWNN	21.8	-1.38	1.79	26.2	0.18	4.17	4
F2DK6R	27.6	0.64	1.52	26.0	0.12	1.83	4
G7QK64	23.2	-0.89	0.45 L	23.1	-1.16	0.14	2
KP8ZWM	30.4	1.62	0.55 L	24.9	-0.39	3.79	4
LMX9JY	16.2	-3.32 X	1.30	24.3	-0.65	8.64 H	4
NPFC3G	27.2	0.50	2.59	26.7	0.40	0.85	4
NTVGZC	24.6	-0.41	2.54	25.8	0.02	2.25	4
NUA724	30.6	1.69	0.79	28.9	1.39	1.80	4
PQ6W9D	27.4	0.57	5.08 H	28.6	1.24	0.91	4
PT9TU2	22.9	-0.99	0.96	25.0	-0.32	5.01	4
TFDKMA	26.4	0.22	2.07	26.8	0.47	1.03	4
TG94NC	20.0	-2.00 *	1.70	21.9	-1.69	1.52	4
U8DKM9	28.2	0.85	1.48	28.5	1.22	3.87	4
W6YX3Y	25.4	-0.12	2.33	25.1	-0.27	0.21 L	4
X3Q6K7	31.2	1.89	2.71	27.6	0.82	3.31	4
Y4FPR2	25.0	-0.26	1.58	28.5	1.20	2.68	4
YCVADM	24.6	-0.40	4.39	20.6	-2.25 *	3.89	4
YY7CA3	26.0	0.09	1.58	28.2	1.07	2.44	4
ZVGKDQ	27.0	0.43	4.64	27.7	0.86	1.86	4
ZYZEDX	21.0	-1.65	1.22	20.6	-2.26 *	0.59	4

Consensus (All Labs) Results			
Month Mean	25.76	Grand Mean	25.73
Avg SD	2.52	Avg SD Months	2.94
SD btwn Labs	2.87	SD btwn Labs	2.27
Labs Incl	28	Labs Incl	29



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

Report #679
April 2026

Key to Instrument Codes Reported by Participants

ZZ Instruments No Longer Tracked



Containerboard Interlaboratory Testing Program
Analysis 237

Report #679
April 2026

Air Resistance, 42 Ib Linerboard - 42N

TAPPI Official Test Method T460

WebCode	Monthly Results			Cumulative Results						
	Mean	CPV	SD	Mean	CPV	SD	Months	Months	Inst	
3UJTHW	44.7	0.78	2.45	41.5	-1.23	3.80	H	4	XX	
6UUF63	44.6	0.71	3.12	46.0	1.99 *	1.05		4	LA	
76BLGX_AL	42.1	-0.67	2.28	42.1	-0.75	0.00		1	AL	
88R4CM	42.0	-0.76	4.19	42.1	-0.76	2.10		4	LA	
8BVYVQ	44.4	0.63	3.73	44.2	0.68	0.85		4	LP	
8BVYVQ_AL	42.7	-0.35	2.30	44.7	1.07	1.58		4	AL	
8GX82H	45.4	1.20	3.67	46.1	2.04 *	1.64		4	GA	
8LCL4Q	43.3	-0.02	2.68	43.9	0.53	0.81		4	LP	
9JJCAF_AL	43.0	-0.20	2.34	43.3	0.07	0.31		4	AL	
AXUCGQ	45.4	1.20	3.25	44.4	0.84	1.10		4	LP	
B2DQMC_AL	46.7	1.93 *	2.28	45.2	1.40	1.90		4	AL	
BUBHFJ	46.3	1.67	4.73	H	43.3	0.04	2.07	4	XX	
D4BRZE	45.2	1.07	3.08	44.4	0.83	1.35		4	LA	
D97LVU	43.2	-0.10	1.56	43.7	0.33	0.37		4	LP	
DDGWNN_AL	45.5	1.24	1.39	45.5	1.62	0.30		4	AL	
F2DK6R	45.1	0.99	2.88	43.6	0.32	1.35		4	LP	
G7QK64_AL	69.9	15.14 X	3.52	51.0	5.57 X	26.71		2	XX	
HJRGZB_AL	42.9	-0.23	1.60	42.7	-0.33	0.86		4	AL	
HKMY3C_AL	43.2	-0.07	2.79	42.1	-0.78	1.04		3	AK	
KP8ZWM_AL	40.4	-1.65	2.72	40.2	-2.13 *	1.02		4	AL	
NPFC3G	43.6	0.16	2.88	43.9	0.49	1.21		4	LP	
NTVGZC_AL	39.8	-2.04 *	1.78	40.6	-1.86	0.78		4	AL	
NUA724_AL	42.5	-0.47	1.47	43.3	0.06	0.68		4	AL	
PQ6W9D	43.0	-0.20	1.91	44.6	1.02	2.34		4	TP	
PQ6W9D_AL	41.5	-1.02	2.62	42.1	-0.75	1.32		4	XX	
PT9TU2	44.2	0.49	2.33	41.4	-1.27	5.63	H	4	LA	
QGUVMC_AL	42.4	-0.54	2.26	43.2	0.01	1.10		4	AL	
RGEXUC_AL	39.0	-2.49 *	2.36	40.4	-2.00 *	1.77		4	AL	
TFDKMA	37.1	-3.53 X	1.09	L	37.8	-3.89 X	5.66	H	4	LP
TG94NC_AL	42.4	-0.51	1.30	43.0	-0.14	1.77		4	AL	
U3HQP8	42.9	-0.26	1.29	43.3	0.06	0.84		4	LP	
U8DKM9	44.5	0.65	1.77	44.0	0.60	0.53		4	LP	
W6YX3Y	43.9	0.34	1.66	44.4	0.86	1.12		4	TP	
XNA7F6	40.9	-1.37	1.16	L	42.9	-0.19	1.50		4	LA
XTPGT9	44.7	0.77	3.74	43.7	0.35	1.37		4	LP	
Y4FPR2_AL	45.0	0.97	2.45	43.4	0.15	1.66		4	AL	
Y9WVPW	42.6	-0.41	4.40	H	42.0	-0.87	1.47		4	GG
YCVADM_AL	44.7	0.78	2.64	42.3	-0.62	1.59		4	AL	
YY7AKY	43.4	0.06	1.42	42.9	-0.18	0.93		4	LA	



Containerboard Interlaboratory Testing Program
Analysis 237

Report #679
April 2026

Air Resistance, 42 lb Linerboard - 42N1

TAPPI Official Test Method T460

WebCode	Monthly Results				Cumulative Results				
	Mean	CPV	SD		Mean	CPV	SD Months	Months	Inst
YY7CA3_AL	43.3	-0.04	0.56	L	42.8	-0.25	1.08	4	AL
ZVGKDQ	42.4	-0.55	2.02		43.2	-0.02	1.87	4	LP
ZYZEDX	40.3	-1.70	4.67	H	41.5	-1.20	0.84	4	TD

Consensus (All Labs) Results			
Month Mean	43.33	Grand Mean	43.20
Avg SD	2.68	Avg SD Months	1.69
SD btwn Labs	1.75	SD btwn Labs	1.40
Labs Incl	40	Labs Incl	40

Key to Instrument Codes Reported by Participants

- | | |
|---|---|
| AK L & W Autoline 300 | 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

Report #679
April 2026

Flat Crush Strength (CMT), 26 lb Corrugating Medium - CM61

TAPPI Official Test Method T809

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		
2ZYGR	49.5	49.1	48.5	50.1	49.3	-1.37	1.9	0.7	47.5	-2.04 *	3.8	4.0	H	12	TX
3UJTHW	45.4 *	46.8 *	49.6	51.8	48.4	-1.68	1.6	2.9 H	49.5	-1.37	2.0	2.3		16	LD
3VECJX	50.3	51.6	51.6	48.8	50.6	-0.94	2.9	1.3	51.8	-0.56	2.5	1.2		16	LD
4P4J6R	50.6	49.9	49.3	50.2	50.0	-1.13	2.0	0.5	50.8	-0.89	2.3	1.1		16	LD
6UUF63	56.7	62.2 *H	61.8 *	62.4 XH	60.8	2.55 *	4.5	2.7 H	57.2	1.35	3.9	3.4		16	TU
84CXDR	56.1	57.3	55.7	55.9	56.3	1.00	2.6	0.7	56.0	0.92	2.7	0.7		16	LD
88R4CM	49.9	52.1 H	51.5 H	50.8 H	51.1	-0.76	4.7	0.9	49.3	-1.42	4.3	1.9		16	MB
8BV2KU	56.5	59.2	58.2	57.3	57.8	1.53	3.1	1.2	56.9	1.25	2.9	1.7		16	LC
8BVYVQ	52.2	53.3	52.1	53.5	52.8	-0.18	3.4	0.7	52.5	-0.31	3.5	1.3		16	LD
8LCL4Q	53.5	50.8	52.8 H	53.5	52.6	-0.23	3.4	1.2	54.0	0.24	3.0	1.4		16	LZ
8VE76X	56.0	53.6	53.3	53.0	53.9	0.22	2.3	1.4	54.4	0.37	2.4	0.9		16	LZ
92ZHJR	51.4	51.8	51.7	51.0	51.5	-0.63	1.9	0.3	52.0	-0.49	1.8	1.2		16	LD
948XRH	52.7	51.2	51.4	54.2	52.4	-0.32	2.1	1.4	53.5	0.06	2.5	1.1		16	TX
9HNT8E	56.5 L	56.6 L	56.6 L	56.5 L	56.6	1.10	0.6	0.1 L	57.0	1.26	0.6	0.8		16	LD
9RVB4R	51.6	52.8	52.0 L	53.7	52.5	-0.28	1.8	0.9	55.1	0.60	1.0	2.2		16	TU
AADQLE	49.6	49.4	49.4 L	49.4	49.5	-1.31	1.6	0.1 L	48.5	-1.72	2.1	1.0		16	LD
AXUCGQ	53.1	54.2	52.4	52.3	53.0	-0.10	2.6	0.9	52.4	-0.33	2.8	1.3		16	LD
B2DQMC	57.1	56.5	57.0	56.8	56.9	1.21	2.6	0.3	56.2	0.98	2.7	1.1		16	LD
BG328T	52.8 H	51.3	53.5	54.5	53.0	-0.10	5.4	1.3	52.2	-0.42	3.9	2.1		16	LD
BUBHFJ	55.4	53.7	56.8	57.5	55.9	0.87	3.3	1.7	55.7	0.81	2.7	1.1		16	LD
BZGBAE	52.3	53.2	54.3	51.4	52.8	-0.18	2.3	1.3	53.2	-0.05	2.7	1.5		16	TX
D97LVU	56.5	53.9	55.8	54.5	55.2	0.64	3.0	1.2	54.7	0.48	3.2	1.3		12	LD
F2DK6R	49.6	47.5	47.8	48.7	48.4	-1.68	2.4	1.0	49.0	-1.54	2.1	0.9		16	LZ
HJRGZB	48.7	51.5	51.4 H	51.5	50.8	-0.87	3.8	1.3	52.0	-0.48	2.7	1.8		16	LD
JKWMEN	58.3 L	54.2	54.8	55.2	55.6	0.79	2.6	1.8	57.2	1.34	2.6	2.1		16	LC
KP8ZWM	51.6	54.2	53.9	50.8	52.6	-0.24	2.6	1.7	53.4	0.01	2.4	1.4		16	LZ
NPFC3G	54.0	54.7	54.6	54.6	54.5	0.39	2.8	0.3	54.5	0.40	2.9	1.2		16	XX
NUA724	50.6	51.0	52.3	51.6	51.4	-0.66	1.8	0.7	51.5	-0.64	2.2	1.6		16	LD
PQ6W9D	51.9	52.4	50.1	50.3	51.2	-0.72	2.0	1.2	50.9	-0.85	2.2	0.8		16	LD
PT9TU2	56.8 H	59.7	58.0	59.3 *	58.4	1.74	3.9	1.3	60.0	2.34 *	3.9	6.0 H		16	LD
QGUVMC	55.4	55.0	53.2	NO DATA	54.5	0.42	2.2	1.2	54.0	0.21	2.6	1.1		13	LC
QLPMV9	58.6 L	61.2 *L	58.7 L	60.4 *L	59.7	2.18 *	0.7	1.3	59.2	2.05 *	0.9	1.8		16	XX
QVUUCU	52.6	51.2	53.7	49.7	51.8	-0.52	3.0	1.7	52.4	-0.34	2.6	1.3		16	LD
TFDKMA	54.8	55.8	59.8 *	56.0	56.6	1.13	2.8	2.2	54.5	0.41	2.3	2.4		14	LD
TG94NC	53.1	50.0	50.7 L	51.2	51.2	-0.72	2.1	1.3	50.6	-0.98	2.4	1.8		16	LD



Containerboard Interlaboratory Testing Program
Analysis 240

Report #679
April 2026

Flat Crush Strength (CMT), 26 lb Corrugating Medium - CM61

TAPPI Official Test Method T809

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	
U3HQP8	52.7	50.6	51.1	50.4	L	51.2	-0.73	1.5	1.0	51.9	-0.51	1.5	1.5	16	LD
U8DKM9	No DATA	No DATA	No DATA	51.6		51.6	-0.58	1.7	0.0	51.1	-0.81	1.9	0.9	4	LD
UAJ3L4	55.6	57.3	56.4	56.5		56.5	1.07	3.0	0.7	57.5	1.46	3.8	2.0	16	TB
W6YX3Y	51.7	53.8	53.3	51.1		52.5	-0.29	2.1	1.3	52.5	-0.32	2.6	1.1	16	LC
WAE3ZU	52.5	52.2	53.7	51.4		52.5	-0.29	3.0	0.9	52.5	-0.32	3.0	0.9	4	LD
WCLKW6	55.9	54.5	55.4	54.3		55.1	0.59	2.7	0.7	55.6	0.80	2.6	1.2	16	LD
X2E32R	50.8	51.9	51.6	51.5		51.5	-0.63	2.0	0.5	51.6	-0.63	2.1	0.9	16	EM
X3Q6K7	51.4	53.0	53.4	51.9		52.4	-0.30	2.8	0.9	52.4	-0.32	3.0	1.2	16	EN

Consensus (All Labs) Results														
Wk Mean	53.14	53.38	53.55	53.04		Month Mean	53.31			Grand Mean	53.36			
Avg SDr	2.97	2.72	2.76	2.49		Avg SD	2.75			Avg SD	2.71			
SD btwn Labs	2.92	3.36	3.13	2.88		SD btwn Labs	2.93			SD btwn Labs	2.86			
Labs Incl	42	42	42	41		SD btwn Wks	1.27			SD btwn Wks	1.85			
Labs Excl	0	0	0	1		Labs Incl	43			Labs Incl	43			
Labs not Rcvd	1	1	1	1										

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 #679
April 2026

Fluted Edge Crush Strength (FCF), 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
3VECJX	57.2	57.6	56.5	57.9	57.3	-0.29	2.4	0.6	57.3	-0.25	2.4	0.6	4	LZ
4P4J6R	57.7	59.1	58.0	58.0	58.2	-0.11	2.3	0.6	58.1	-0.08	2.7	1.0	16	LD
8BVYVQ	48.5 *	49.3	50.8	49.7	49.6	-1.75	3.0	0.9	48.7	-2.11 *	2.9	1.2	16	LD
8VE76X	58.4	58.6	59.6	58.8	58.9	0.01	2.2	0.5	58.3	-0.03	2.1	1.0	16	LZ
AXUCGQ	58.1	59.5	59.0	58.7	58.8	0.01	1.9	0.6	58.3	-0.03	1.9	1.1	16	LD
BUBHFJ	52.2 H	50.7	50.6 H	50.1	50.9	-1.50	3.9	0.9	51.2	-1.58	3.7	1.0	16	XX
F2DK6R	63.1	62.9	62.2	62.0	62.5	0.71	1.9	0.6	60.4	0.43	4.6	2.9	16	LD
GL4T68	59.3	59.1	56.7	58.7	58.4	-0.07	1.9	1.2	58.0	-0.09	1.9	0.9	16	LC
HJRGZB	59.9	65.8 H	58.5	61.0	61.3	0.48	3.9	3.2 H	59.8	0.31	2.8	2.0	16	XX
KP8ZWM	54.1	52.4	54.1	53.2	53.4	-1.02	2.3	0.8	54.0	-0.97	3.3	1.0	16	LZ
NPFC3G	58.8	60.5	59.7	58.9	59.5	0.13	2.1	0.8	59.8	0.30	2.0	0.9	16	XX
NUA724	60.1	58.8	58.0	57.6	58.6	-0.03	2.2	1.1	58.7	0.05	3.4	2.4	16	LD
PQ6W9D	63.1	62.7	62.3	61.6	62.4	0.69	2.0	0.7	61.0	0.57	2.3	1.1	16	LD
PT9TU2	74.0 XH	70.3 *	70.1 *H	70.4 *H	71.2	2.35 *	5.4	1.9	68.0	2.08 *	4.9	6.1 H	16	LD
QGUVMC	62.7	59.0	62.7	NO DATA	61.5	0.51	2.3	2.1	61.2	0.61	2.1	1.4	13	LC
QLPMV9	69.5 *L	69.5 *L	69.7 *L	70.5 *L	69.8	2.08 *	0.7	0.5	69.2	2.36 *	0.9	2.3	16	XX
RXXPVW	56.1	55.2	55.7	55.1	55.5	-0.63	2.3	0.4	55.6	-0.61	2.7	1.9	16	XX
TFDKMA	60.1	59.4	57.4	61.9	59.7	0.17	2.2	1.8	58.3	-0.02	2.6	1.9	14	LD
TG94NC	57.3	57.0	58.3	57.5	57.5	-0.24	1.9	0.5	58.5	0.02	2.0	1.1	16	LD
U3HQP8	62.1	64.2	63.2 L	62.2 L	62.9	0.78	1.2	1.0	62.2	0.83	1.3	0.9	16	LD
U7G6BB	51.3	51.9	52.3	51.9	51.8	-1.32	2.8	0.4	53.5	-1.08	2.1	1.4	16	LD
W6YX3Y	60.2	59.4 L	60.4	59.1	59.8	0.19	1.6	0.6	59.2	0.18	1.8	1.2	16	LC
WCLKW6	53.6 H	52.4	53.1 H	51.7	52.7	-1.16	4.7	0.8	54.4	-0.89	4.2	3.0	16	LD

Consensus (All Labs) Results														
Wk Mean	58.32	58.92	58.64	58.47	Month Mean	58.79			Grand Mean	58.42				
Avg SDr	2.45	2.69	2.88	2.63	Avg SD	2.71			Avg SD	2.81				
SD btwn Labs	4.62	5.48	5.05	5.43	SD btwn Labs	5.27			SD btwn Labs	4.59				
Labs Includ	22	23	23	22	SD btwn Wks	1.18			SD btwn Wks	2.02				
Labs Exclcd	1	0	0	0	Labs Includ	23			Labs Includ	23				
Labs not Rcvd	0	0	0	1										

Key to Instrument Codes Reported by Participants

- LC L&W Crush Tester 48
- LZ L&W Crush Tester (model not specified)
- LD L&W Crush Tester 248
- 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 #679
April 2026

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	
3UJTHW	33.5	33.5	L 34.9	33.5	33.9	0.18	1.4	0.7	34.2	0.30	1.6	1.6	16	LD
3VECJX	33.0	33.1	33.6	32.4	33.0	-0.15	1.9	0.5	34.1	0.23	2.0	1.5	16	LZ
4P4J6R	34.8	36.5	34.5	34.7	35.1	0.69	1.8	0.9	33.6	0.05	1.9	1.2	16	LD
84CXDR	35.2	35.7	35.2	35.2	35.3	0.76	1.5	0.3	34.8	0.52	1.7	0.8	16	LD
88R4CM	35.8	37.7	H 37.9	H 38.0	*H 37.4	1.56	5.1	1.0	34.5	0.40	3.1	2.2	16	MB
8BV2KU	33.3	33.3	34.4	33.4	33.6	0.09	1.9	0.5	34.0	0.18	1.9	1.4	16	XX
8GX82H	32.6	33.1	33.4	32.2	32.8	-0.22	2.2	0.5	32.1	-0.58	1.9	0.9	16	LD
92ZHJR	31.9	31.8	31.3	31.3	31.5	-0.73	1.7	0.3	32.2	-0.52	1.7	1.1	16	LD
948XRH	30.3	27.3	* 29.4	34.2	30.3	-1.21	1.6	2.9	H 34.1	0.25	1.9	3.6	H 16	LZ
9HNT8E	*L 38.3	L 38.4	L 37.2	L 37.3	L 37.8	1.73	0.8	0.6	39.3	2.37	* 0.7	2.1	16	LD
9RVB4R	31.9	32.4	33.5	34.4	33.0	-0.14	1.8	1.1	32.9	-0.25	1.0	0.5	16	TU
AXUCGQ	33.5	33.5	34.6	33.6	33.8	0.15	1.6	0.6	33.4	-0.04	1.7	0.8	16	LD
B2DQMC	34.8	35.3	35.9	35.7	L 35.4	0.80	1.3	0.5	36.1	1.04	1.6	0.7	16	LZ
BUBHFJ	24.1	X 30.2	H 26.4	* 29.5	* 27.6	-2.30	* 2.7	2.8	H 27.3	-2.54	* 2.6	2.0	8	XX
BZGBAE	27.4	XH 26.4	* 26.9	*H 26.7	X 26.9	-2.57	* 3.3	0.4	27.7	-2.36	* 3.0	1.6	16	MZ
D97LVU	34.5	33.3	33.2	33.0	33.5	0.04	2.1	0.7	33.3	-0.09	2.5	1.0	16	LD
F2DK6R	35.1	35.2	34.4	35.1	34.9	0.61	1.5	0.4	35.6	0.84	1.7	1.1	16	LD
HJRGZB	34.6	37.8	38.7	35.6	36.7	1.29	2.3	1.9	36.0	1.02	2.1	1.5	16	LD
HKMY3C	35.2	L 34.7	34.9	35.2	35.0	0.63	1.3	0.2	34.0	0.18	1.9	1.8	16	LD
NPFC3G	34.1	33.1	32.8	33.8	33.5	0.03	2.1	0.6	33.7	0.10	1.9	0.6	16	XX
PQ6W9D	32.0	32.2	31.7	30.6	31.6	-0.70	1.4	0.7	30.8	-1.11	1.5	1.0	16	LD
QVUUCU	32.5	35.4	34.4	34.5	H 34.2	0.31	2.3	1.2	34.3	0.32	2.2	1.5	16	LD
RCFKA9	31.2	32.1	31.5	32.1	31.7	-0.67	1.6	0.5	32.2	-0.52	1.7	1.1	16	TH
RXXPVW	36.5	37.4	35.4	37.3	36.6	1.28	1.7	0.9	37.5	1.62	2.2	1.5	16	LD
TG94NC	32.3	32.2	31.7	32.8	32.2	-0.45	2.3	0.4	32.7	-0.32	2.3	1.1	16	LD
U3HQP8	32.2	32.0	31.8	32.6	L 32.1	-0.50	1.3	0.3	31.7	-0.73	1.3	1.0	16	LD
UAJ3L4	34.7	H 32.4	33.2	33.0	33.3	-0.02	2.6	1.0	33.7	0.09	2.2	1.3	16	XX
W6YX3Y	31.7	32.0	31.7	33.1	32.1	-0.49	1.7	0.7	32.4	-0.46	2.3	0.9	16	LC

Consensus (All Labs) Results														
Wk Mean	33.67	33.50	33.37	33.86	Month Mean	33.40			Grand Mean	33.50				
Avg SDr	1.88	2.11	2.36	1.97	Avg SD	2.10			Avg SD	2.00				
SD btwn Labs	1.84	2.82	2.81	1.99	SD btwn Labs	2.54			SD btwn Labs	2.46				
Labs Incl	26	28	28	27	SD btwn Wks	1.06			SD btwn Wks	1.46				
Labs Excl	2	0	0	1	Labs Incl	28			Labs Incl	28				
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 #679
April 2026

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
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 #679
April 2026

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	
2ZYGR	10.1 *L	10.9	10.9	10.5 L	10.6	-1.45	0.7	0.4	10.9	-1.17	0.9	0.6	16	TT
4P4J6R	10.4	10.4	10.7	10.9 L	10.6	-1.49	0.7	0.2	10.4	-1.98 *	0.7	0.2	16	LB
6UUF63	11.9	12.4	12.5	12.4	12.3	1.19	1.0	0.3	12.2	1.28	1.0	0.3	16	LA
76BLGX	12.0	11.5	11.8	11.5	11.7	0.23	0.9	0.2	11.7	0.26	0.9	0.2	4	LA
88R4CM	12.1 H	11.6	11.2 H	11.9	11.7	0.29	1.8	0.4	12.0	0.89	1.4	0.5	16	LA
8BVYVQ	11.4 H	11.8 H	12.3 H	11.8 H	11.8	0.47	2.0	0.4	11.2	-0.68	1.5	0.8	12	LB
8GX82H	11.0 L	11.2	15.0 X	11.2	12.1	0.90	0.7	1.9 H	11.3	-0.49	0.8	1.5 H	16	LB
92ZHJR	11.4	11.3 L	11.0	11.3	11.3	-0.44	0.7	0.2	11.4	-0.28	0.7	0.3	16	XX
948XRH	11.5	11.1	11.6 L	12.6	11.7	0.26	0.8	0.6	12.2	1.26	0.8	0.7	16	TX
9RVB4R	11.0	11.5	11.9 H	11.8	11.6	0.03	1.1	0.4	10.9	-1.16	0.9	0.5	16	XX
BD88CD	10.8	10.8	10.6 L	11.2	10.9	-1.03	0.8	0.3	11.3	-0.45	0.8	0.8	16	XX
BUBHFJ	12.1 L	11.8 L	11.8 L	11.1 L	11.7	0.27	0.0	0.5	11.7	0.25	0.0	0.5	16	LH
BZGBAE	10.6	10.5	10.4	10.3	10.4	-1.69	0.9	0.1	11.1	-0.77	0.9	0.9	16	TS
D4BRZE	11.6	11.5 H	12.0 H	11.6 H	11.7	0.27	1.6	0.2	12.3	1.30	1.2	0.5	16	LA
D97LVU	11.2	11.0 L	11.1	11.3	11.1	-0.60	0.7	0.1	11.1	-0.77	0.7	0.2	16	LH
DZQYNB	12.4	11.4	11.4	11.9	11.8	0.38	0.9	0.5	11.5	-0.03	0.9	0.4	16	LU
F2DK6R	13.0 *	13.2 *	12.8	12.5	12.9	2.07 *	0.9	0.3	11.8	0.50	0.9	1.6 H	16	LH
HJRGZB	11.6	10.9	11.4	11.9 H	11.4	-0.13	1.2	0.4	11.7	0.27	1.0	0.5	16	LZ
HKMY3C	11.1	10.8	11.1	11.5	11.1	-0.65	0.7	0.3	12.0	0.92	0.8	0.9	16	LH
JKWMEN	11.6	11.0	12.1 L	12.5	11.8	0.41	0.8	0.6	11.1	-0.72	0.8	0.7	16	LA
NUA724	12.1	11.3	12.0	11.9	11.8	0.45	0.8	0.4	11.6	0.18	0.8	0.5	16	LA
PT9TU2	14.6 X	13.8 X	14.2 X	13.5 *	14.0	3.91 X	1.2	0.5	13.8	4.11 X	1.6	1.1	16	LA
QLPMV9	10.2	10.4	9.6 *L	10.2	10.1	-2.21 *	0.7	0.4	10.8	-1.25	1.0	0.9	16	XX
QVUUCU	11.2	10.3	11.0	11.5	11.0	-0.86	0.9	0.5	11.4	-0.29	0.9	0.5	16	LH
RXXPVW	12.1	12.1	11.9 L	13.2 *	12.3	1.19	1.0	0.6	12.9	2.41 *	1.0	0.6	16	LH
TG94NC	11.2 L	11.0 L	No DATA	No DATA	11.1	-0.67	0.5	0.2	11.2	-0.57	0.6	0.3	14	LA
U8DKM9	No DATA	No DATA	No DATA	11.8	11.8	0.45	0.7	0.0	11.1	-0.87	0.6	0.6	4	LH
W6YX3Y	11.4	11.4	11.3 L	11.4	11.4	-0.23	0.7	0.1 L	11.1	-0.76	0.7	0.3	16	LU
WCLKW6	11.9 L	11.7 L	11.1 L	11.0	11.4	-0.20	0.6	0.4	11.6	0.15	0.5	0.5	16	LA
X2E32R	12.4	12.2	11.9	11.8	12.1	0.84	0.8	0.3	12.1	0.99	0.9	0.4	16	LH
YY7AKY	12.3	13.0 *	13.3 *	12.5	12.8	1.93 *	1.1	0.4	12.4	1.59	2.5	1.1	16	LA



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

Report #679
April 2026

Consensus (All Labs) Results								
Wk Mean	11.50	11.38	11.50	11.69	Month Mean	11.53	Grand Mean	11.53
Avg SDr	1.02	1.01	1.03	0.98	Avg SD	0.99	Avg SD	1.00
SD btwn Labs	0.70	0.71	0.78	0.77	SD btwn Labs	0.64	SD btwn Labs	0.55
Labs Incd	29	29	27	30	SD btwn Wks	0.51	SD btwn Wks	0.69
Labs Excld	1	1	2	0	Labs Incd	30	Labs Incd	30
Labs not Rcvd	1	1	2	1				

Key to Instrument Codes Reported by Participants

LA L&W Autoline LH L&W 282 LZ L&W (model not specified) TT TMI Short Span Compression, 17-34 (MB K455) XX Instrument make/model not specified by lab	LB L&W Model 152 LU L&W 52 without moisture correction (was 53) TS TMI Monitor/STFI Compression Tester, 17-33 TX TMI (model not specified)
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