



Containerboard Interlaboratory Testing Program

Participant Summary Report #680 - May 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>206</u>	<u>52M1</u>	<u>Bursting Strength (Mullen), 52 lb Linerboard</u>
<u>215</u>	<u>42N1</u>	<u>Ring Crush, 42 lb Linerboard</u>
<u>216</u>	<u>52M1</u>	<u>Ring Crush, 52 lb Linerboard</u>
<u>223</u>	<u>42N1</u>	<u>STFI, 42 lb Linerboard</u>
<u>224</u>	<u>52M1</u>	<u>STFI, 52 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>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 #680
May 2026

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst
3EC94L	510.6	-2.08 *	28.05	573.6	-1.03	59.35	4	LG
3M7DV2	580.6	-0.47	67.42	573.1	-1.05	40.61	4	LG
4GXDCJ	627.4	0.60	52.56	676.7	1.97 *	50.35	4	ET
6YT37R	639.0	0.87	58.55	618.7	0.28	40.85	4	EX
77QG4X	547.0	-1.25	66.64	570.9	-1.11	16.54	4	LG
8BZULW	608.5	0.17	37.47	621.2	0.35	36.57	4	LO
8EZ6HW	654.8	1.24	56.25	653.7	1.30	7.71	4	LM
8V9WMM	490.7	-2.54 *	89.01	559.5	-1.44	70.51 H	4	TB
ATQMLK	582.3	-0.43	68.39	582.3	-0.78	0.00	1	LG
BJYN9K	579.6	-0.50	74.93	596.0	-0.38	31.74	4	ER
CR8RNH	552.7	-1.12	75.34	533.6	-2.20 *	31.70	4	LL
CRM2MA	608.5	0.17	55.67	598.2	-0.32	10.12	4	LS
EA3UNJ	572.2	-0.67	10.04 L	604.1	-0.15	33.68	4	XX
JTVJL8	666.1	1.49	28.90	659.0	1.45	7.85	4	LG
KRZ4AB	608.4	0.17	69.88	582.8	-0.76	36.20	2	LM
LDDBY9	601.3	0.00	54.71	600.7	-0.24	28.97	4	ER
LYBQDB	615.6	0.33	77.92	629.4	0.59	27.97	4	EX
MLQNG6	657.0	1.29	31.38	642.3	0.97	31.84	4	LS
NN94J6	626.3	0.58	10.98 L	628.4	0.56	6.88	4	EX
T4PRK3	590.4	-0.25	36.74	616.3	0.21	20.64	4	EX
T6KBL4	648.7	1.09	16.73	623.2	0.41	21.56	4	EX
UH4F86	583.6	-0.40	42.15	592.3	-0.49	11.18	4	EX
VLXVW4	585.7	-0.36	28.40	608.3	-0.02	22.23	4	ER
YP6KQN	613.0	0.27	31.84	609.7	0.02	8.50	4	ER
YT4L4Y	643.1	0.97	26.68	610.9	0.05	29.98	4	LG
Z6CYKQ	636.8	0.82	24.56	670.9	1.80	25.59	4	LS

Consensus (All Labs) Results			
Month Mean	601.15	Grand Mean	609.06
Avg SD	51.91	Avg SD Months	32.53
SD btwn Labs	43.45	SD btwn Labs	34.35
Labs Incd	26	Labs Incd	26



Containerboard Interlaboratory Testing Program
Analysis 201

Report #680
May 2026

Top to Bottom Box Compression Strength, Corrugated Boxes - BX20

TAPPI Official Test Method T804

Consensus By Method

Test Method	Group Mean	SD btwn Group	Difference from Grand Mean	Labs Included
Hot melt adhesive sealing	596.32	51.91	4.83	9
Water based adhesive sealing	636.80	0.00	35.65	1
Clip sealing	600.88	41.42	0.27	15
Staple sealing	613.00	0.00	11.85	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

Report #680
May 2026

WebCode	Monthly Results			Cumulative Results					
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst	
77QG4X	43.8	0.71	2.04	44.1	0.17	0.73	L 4	EX	
BE3YRD	43.5	0.64	0.52	40.7	-0.32	1.96	L 4	TS	
CRM2MA	38.9	-0.31	2.64	40.3	-0.38	1.51	4	LD	
E28RKL	33.7	-1.40	3.96	35.0	-1.15	4.24	4	TH	
LYBQDB	43.4	0.61	1.43	45.7	0.41	1.74	4	LC	
P9UGBY	40.9	0.09	1.12	56.6	1.98	23.23	H 4	TD	
T6KBL4	46.0	1.16	2.73	45.5	0.37	0.77	L 4	LC	
VLXVW4	33.2	-1.51	6.03	35.4	-1.09	2.80	4	EN	

Consensus (All Labs) Results			
Month Mean	40.42	Grand Mean	42.90
Avg SD	3.04	Avg SD Months	8.48
SD btwn Labs	4.79	SD btwn Labs	6.91
Labs Incl	8	Labs Incl	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

Report #680
May 2026

WebCode	Monthly Results				Cumulative Results				
	Mean	CPV	SD		Mean	CPV	SD Months	Months	Inst
3EC94L	48.8	1.39	2.50	H	49.8	1.36	1.18	4	MK
3NWPMU	48.3	1.20	0.75		49.0	1.09	0.68	3	EM
4GXDCJ	43.4	-0.63	0.62	L	45.5	-0.10	2.16	4	TD
6AAWBT	39.4	-2.15 *	0.83		38.9	-2.34 *	0.58	4	BU
77QG4X	45.7	0.20	1.33		46.2	0.12	0.41	4	LY
8BZULW	42.4	-1.03	2.10		43.4	-0.80	0.94	4	LD
8EZ6HW	46.1	0.36	0.92		46.5	0.25	0.36	4	EM
8V9WMM	45.3	0.07	0.85		49.6	1.29	4.83	H 4	LD
AEPBQL	50.5	2.01 *	1.27		51.1	1.79	0.36	4	TG
AL7TZM	43.1	-0.77	1.96		48.6	0.94	3.81	4	TU
ATQMLK	43.8	-0.49	0.55	L	45.8	-0.01	1.91	3	EM
BE3YRD	41.6	-1.32	1.21		40.6	-1.77	0.69	4	TS
BJYN9K	46.0	0.32	1.39		46.6	0.28	0.59	4	EM
CRM2MA	46.6	0.56	1.19		45.9	0.03	2.23	4	LD
E28RKL	40.2	-1.84	0.81		42.1	-1.26	3.09	4	TH
GRBX2K	45.9	0.30	1.49		45.7	-0.04	2.07	3	LD
JTVJL8	48.2	1.16	0.66	L	47.3	0.51	2.69	4	BU
KPQFAB	43.9	-0.47	3.18	H	40.8	-1.70	2.16	4	XX
KRZ4AB	42.2	-1.08	1.80		44.6	-0.41	1.62	4	TG
LDDBY9	46.1	0.36	1.82		44.0	-0.60	3.25	4	LD
LYBQDB	48.0	1.07	1.05		48.1	0.78	0.59	4	LC
M42ME8	43.3	-0.67	1.75		44.6	-0.40	1.32	4	TS
MLQNG6	42.9	-0.83	1.47		45.3	-0.15	2.14	4	EM
PCTT8Y	47.1	0.75	0.67		48.7	0.97	1.10	4	EM
QZVCV3	47.1	0.75	2.59	H	48.1	0.78	1.06	4	EM
T4PRK3	44.9	-0.09	1.20		43.2	-0.88	2.17	4	LD
T6KBL4	48.9	1.41	1.38		48.8	1.03	0.91	4	LC
VLXVW4	43.1	-0.74	0.65	L	42.8	-1.03	0.99	4	EN
YP6KQN	45.3	0.06	1.57		47.3	0.51	3.63	4	LD
Z6CYKQ	45.5	0.14	1.51		45.2	-0.20	1.22	4	EM

Consensus (All Labs) Results			
Month Mean	45.12	Grand Mean	45.80
Avg SD	1.51	Avg SD Months	2.04
SD btwn Labs	2.68	SD btwn Labs	2.94
Labs Incd	30	Labs Incd	30



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

Report #680
May 2026

Key to Instrument Codes Reported by Participants

BU	Buchel Digital Crush Tester	EM	Emerson 1200 Series
EN	Emerson 2200	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
TG	TMI Digital Crush Tester, 17-76	TH	TMI Monitor/Compression Tester, Model 17-76
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 #680
May 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	
2ZZDAY_AL	119.5	123.1	121.4	122.4	121.6	1.12	11.3	1.6	121.1	1.34	9.4	2.7	16	AL
36AQRX	107.8	113.0	106.0	108.4	108.8	-1.19	7.7	3.0	108.8	-1.34	8.2	2.1	16	LC
3NWPMU_AL	108.6	107.0	109.5	107.2	108.1	-1.31	9.5	1.2	109.7	-1.15	8.8	3.3	16	AL
4NWY2X	119.9	119.8	119.8	116.8	119.1	0.66	6.2	1.5	116.3	0.28	8.7	3.1	14	TB
6ELFWF_AL	117.8	112.8	110.4	115.3	114.1	-0.24	9.0	3.2	114.3	-0.16	8.2	2.3	8	AL
6FFP6N_AL	120.8	117.1	118.6	119.3	118.9	0.64	9.5	1.6	119.3	0.93	9.3	4.4	16	AL
7FVBEP	105.7	107.5	105.4	110.2	107.2	-1.47	9.0	2.2	109.4	-1.21	8.6	2.8	12	LZ
7JWBXV_AL	101.3 *	106.1	106.1	103.9	104.4	-1.99 *	8.1	2.3	106.4	-1.88	7.8	2.5	16	AL
8JA7VM	108.6	110.3	110.4	110.5	109.9	-0.98	5.9	0.9	110.8	-0.92	6.0	2.5	11	TX
8V9WMM	112.2	105.4	106.7	105.1	107.3	-1.45	7.9	3.3	109.4	-1.22	9.5	4.0	16	XX
ADG2YN_AL	112.1	114.6	105.9 H	109.1 L	110.4	-0.89	9.2	3.8	110.4	-1.00	6.7	3.7	16	AL
BB3XGH_AL	116.6	116.9 H	119.1	120.1	118.2	0.51	12.1	1.7	119.3	0.93	11.1	3.2	8	AL
CE2LJB	108.6	111.2	111.7	110.2	110.4	-0.89	8.9	1.4	113.4	-0.34	9.5	3.0	16	LC
CRM2MA	115.1	115.8	112.1	117.4	115.1	-0.05	8.0	2.2	115.5	0.12	9.3	2.9	16	LA
D3NNDL_AL	108.9 H	109.6	108.2	109.1	109.0	-1.16	10.5	0.6	108.3	-1.47	8.6	2.4	16	XX
E28RKL	123.7	120.6	116.7	113.8	118.7	0.60	7.4	4.4	119.7	1.04	9.7	3.1	16	TX
F22WEL	117.5	111.7	118.0	117.7	116.2	0.15	8.1	3.0	115.2	0.05	8.9	3.1	16	LA
HV9WQ4	108.3 L	107.8	105.9	108.8 L	107.7	-1.39	3.8	1.3	109.5	-1.19	3.8	1.7	16	XX
JJVWUB_AL	115.7	116.6	114.2	114.8	115.3	-0.01	11.3	1.0	114.1	-0.19	8.9	1.7	16	AL
KNJXBF	118.5	114.8	116.7	117.8	116.9	0.28	7.4	1.6	117.1	0.45	8.6	3.4	16	LA
KNJXBF_AL	116.3	126.8 *H	120.2	113.3	119.1	0.68	10.9	5.9 H	116.5	0.34	8.3	4.2	16	AL
KY2HVC	119.6 L	118.9 L	120.1	119.7 L	119.6	0.76	2.3	0.5	119.6	1.01	2.8	7.2 H	16	LA
LKY7YD_AL	115.2	No DATA	114.6	No DATA	114.9	-0.09	6.5	0.5	116.8	0.39	8.6	3.3	10	AL
LT69Z4	113.5	115.9	116.6	109.4	113.8	-0.28	6.4	3.2	113.4	-0.35	7.0	2.5	12	AH
MKARN6_AL	119.0	120.0	121.5	124.4	121.2	1.05	8.2	2.3	118.6	0.78	8.6	3.9	16	AL
MYQM2F	113.8	114.9	120.6	112.8	115.5	0.02	7.8	3.5	113.9	-0.25	8.6	3.3	16	ME
PF97A8	112.3	113.9	114.4	114.5	113.8	-0.29	5.8	1.0	114.4	-0.13	5.8	0.9 L	16	LJ
QDGQX3	127.1	130.9 *	121.4	121.4	125.2	1.77	10.0	4.7	125.1	2.20 *10.6	5.3	12	XX	
R628E3	116.6	116.6	107.3	108.6	112.3	-0.56	9.4	5.0	116.4	0.31	9.6	3.9	16	LC
RFN9UD	119.2	125.3	124.0	124.2	123.2	1.40	6.2	2.7	122.7	1.67	6.7	4.1	16	LA
T4PRK3	126.4	122.8	117.2 L	123.6	122.5	1.28	5.8	3.9	116.3	0.28	7.0	6.0	16	AH
T6KBL4	117.2	114.1	115.5	114.7	115.4	0.00	9.3	1.3	114.3	-0.14	8.3	2.6	16	AH
T9H2K3_AL	108.6	114.7	115.0	114.5	113.2	-0.40	7.2	3.1	112.4	-0.56	8.3	4.0	16	AL
U4MKTU	108.4	116.1	110.6	112.6	111.9	-0.62	8.4	3.3	110.5	-0.97	7.9	2.9	16	LA
VCBUGU	109.1	106.6	114.7	104.0	108.6	-1.22	6.2	4.6	106.8	-1.79	7.3	3.1	16	TP



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

Report #680
May 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	
VNZRHR_AL	113.9	110.2	107.8	113.9	111.4	-0.71	8.1	3.0	113.8	-0.27	8.8	4.1	16	AL
VTF3VW	129.9 *	133.3 X	130.7 *	125.6	129.9	2.61 *	10.4	3.2	129.8	3.24 X	9.6	4.2	16	AX
VYLVPR	120.3	115.9	120.8	117.5	118.6	0.58	10.3	2.3	120.9	1.29	9.0	2.7	16	LA
Y3PZR3	108.5	110.2	109.1	110.4	109.5	-1.06	7.6	0.9	109.0	-1.31	7.2	1.7	16	LC
Y877PW_AL	121.4	110.2	120.5	112.5	116.1	0.14	8.9	5.7	116.5	0.33	9.4	3.7	16	AL
YDCYKT	125.0	120.2	125.3	120.4	122.7	1.32	8.1	2.8	120.3	1.16	8.1	4.3	16	XX
YGRAXW	122.0	124.6	117.1	116.9	120.2	0.86	7.5	3.8	119.7	1.03	8.4	2.9	16	LJ
YP6KQN	111.1	114.0	115.6	111.4	113.0	-0.42	7.5	2.2	111.9	-0.68	7.6	3.4	16	LA
YP6KQN_AL	117.3	114.0	120.6	117.9	117.5	0.37	8.1	2.7	116.0	0.21	9.3	4.0	16	AK
YW4WZY	121.6	121.0	119.8	124.4	121.7	1.14	6.8	1.9	121.2	1.36	7.9	2.2	8	XX
Z9VTLX_AL	120.5	117.1	120.3	120.2	119.5	0.75	9.6	1.6	119.8	1.04	11.6	2.9	16	AL

Consensus (All Labs) Results										
Wk Mean	115.68	115.37	115.30	114.82	Month Mean	115.39	Grand Mean	114.99		
Avg SDr	8.81	7.87	8.32	8.41	Avg SD	8.35	Avg SD	8.43		
SD btwn Labs	6.26	5.84	6.07	5.75	SD btwn Labs	5.54	SD btwn Labs	4.58		
Labs Incd	46	44	46	45	SD btwn Wks	2.88	SD btwn Wks	3.46		
Labs Exclcd	0	1	0	0	Labs Incd	46	Labs Incd	45		
Labs not Rcvd	0	1	0	1						

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 206
Bursting Strength (Mullen), 52 lb Linerboard - 52M1
 TAPPI Official Test Method T807

Report #680
May 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	
2ZZDAY_AL	136.9	137.2	135.3	139.8 H	137.3	1.18	13.3	1.8	139.3	1.96	*12.4	3.2	11	AL
36AQRX	128.8	134.1 L	133.2	126.2	130.6	-0.01	9.8	3.7	125.0	-0.95	9.6	5.6	12	LC
3NWPMU_AL	130.5	129.3	126.8	128.8	128.9	-0.31	10.5	1.6	127.6	-0.42	10.4	3.1	12	AL
4NWX2X	134.4	132.5	134.7	126.0	131.9	0.23	12.9	4.0	132.3	0.53	11.7	2.8	10	TB
6ELFWF_AL	134.1	126.2	135.9	133.1	132.3	0.31	12.0	4.2	132.3	0.54	12.0	4.2	4	AL
6FFP6N_AL	140.5	140.4	210.9 XH	143.0 *	158.7	4.97	X 113.6	34.8 H	144.7	3.08	X66.4	21.0 H	12	AL
7FVBEP	115.3 *	122.6	119.6	125.2	120.7	-1.76	10.5	4.3	123.0	-1.36	9.8	3.8	8	LC
7JWBXV_AL	125.2	121.2	125.2	122.2	123.5	-1.27	10.3	2.1	123.2	-1.33	11.0	2.2	12	XX
8JA7VM	126.1	126.1	129.6	128.5	127.6	-0.54	7.7	1.8	125.0	-0.95	8.7	2.8	12	TX
8V9WMM	126.8	123.2	130.9	122.5	125.9	-0.84	12.6	3.9	124.3	-1.10	11.1	4.5	12	XX
ADG2YN_AL	119.6	119.0 *	114.6 *	123.5	119.2	-2.02 *	7.7	3.7	121.3	-1.71	6.9	3.3	11	AL
BB3XGH_AL	134.7	125.6	124.1	127.7	128.0	-0.46	12.2	4.7	125.2	-0.92	11.6	4.4	8	AL
CE2LJB	129.4	128.1	128.7	133.2	129.9	-0.13	11.0	2.3	128.0	-0.35	10.3	2.8	12	LC
CRM2MA	135.9	134.8	131.0	130.5	133.0	0.43	11.0	2.7	133.0	0.68	11.5	3.8	12	LA
D3NNDL_AL	117.6 *	119.0 *	120.1	120.6	119.3	-2.00 *	11.1	1.3	120.1	-1.96 *	*10.0	5.3	12	XX
E28RKL	139.4	136.3	137.3	135.3	137.1	1.14	11.2	1.7	135.4	1.18	12.1	3.5	12	TX
F22WEL	130.8	131.8	137.9	134.0	133.6	0.53	12.8	3.1	130.6	0.18	12.1	3.7	12	LA
HV9WQ4	123.9	129.0	126.4	122.9	125.6	-0.90	7.2	2.7	125.7	-0.82	7.0	1.8	12	XX
JJVWUB_AL	125.3	127.4 L	126.5	125.5	126.2	-0.79	6.2	1.0	126.0	-0.77	5.2	1.9	8	AL
KNJXBF	132.5	131.2	135.9	140.2	134.9	0.76	11.2	4.0	134.5	0.97	10.2	3.6	12	LA
KNJXBF_AL	140.3	140.0	131.4	126.6	134.6	0.70	9.7	6.7	133.6	0.80	8.9	4.6	12	AL
KY2HVC	140.7	143.6 *L	144.1 *L	140.6 L	142.3	2.06 *	4.2	1.9	133.0	0.68	2.7	6.9	12	LA
LKY7YD_AL	130.1	No DATA	122.8	No DATA	126.4	-0.74	5.7	5.1	129.1	-0.12	8.9	4.0	9	AL
LT69Z4	133.3	128.1	125.1	131.8	129.6	-0.19	9.2	3.7	128.1	-0.32	11.0	3.6	12	AH
MKARN6_AL	136.4	136.2	137.3	129.0	134.7	0.73	9.0	3.9	133.8	0.83	10.3	4.4	12	AL
MYQM2F	129.9	129.8	120.5	136.2	129.1	-0.27	12.9	6.5	129.6	-0.03	11.6	6.4	12	ME
PF97A8	130.6	129.6	129.4	130.5	130.0	-0.10	7.9	0.6	129.6	-0.02	9.6	1.8	12	LJ
R628E3	132.9 H	140.0	134.0	128.0	133.7	0.55	15.6	4.9	136.9	1.47	15.1	5.8	12	LC
RFN9UD	138.0	136.7	135.9	132.9 L	135.9	0.93	7.2	2.2	135.7	1.22	7.8	2.0	12	LA
T4PRK3	138.8	135.2	140.4	145.6 *	140.0	1.66	9.7	4.3	131.3	0.33	10.3	7.0	12	AH
T6KBL4	135.0	132.2 H	133.5	132.0	133.2	0.45	13.5	1.4	130.4	0.15	12.6	4.2	12	AH
T9H2K3_AL	124.7 H	132.7	129.2	127.7	128.6	-0.36	13.9	3.3	127.4	-0.46	13.2	7.0	12	AL
U4MKTU	127.8	128.3	125.3	130.1	127.9	-0.48	11.3	2.0	128.1	-0.32	11.3	3.7	12	LA
VCBUGU	117.8 *	120.2	120.2	116.7 *	118.7	-2.10 *	9.2	1.8	120.5	-1.89	9.8	2.5	8	TP
VNZRHR_AL	124.1 L	124.6	122.9	125.5	124.3	-1.12	9.3	1.1	125.2	-0.93	9.3	3.0	12	AL



Containerboard Interlaboratory Testing Program
 Analysis 206
Bursting Strength (Mullen), 52 lb Linerboard - 52M1
 TAPPI Official Test Method T807

Report #680
May 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	
VTF3VW	140.1	162.4 X	153.2 X	152.5 X	152.1	3.79 X	13.5	9.2 H	149.3	4.01 X	12.0	7.4	12	XX
VYLVPR	143.3	134.1	135.2	137.1	137.4	1.21	12.6	4.1	135.6	1.22	9.5	3.6	12	LA
Y3PZR3	127.6	125.7	130.9	126.6	127.7	-0.52	12.7	2.3	124.8	-0.99	11.9	3.2	12	LA
Y877PW_AL	138.4	130.2	133.4	131.3	133.3	0.48	11.4	3.6	130.2	0.10	14.1	12.6 H	12	AL
YDCYKT	143.5	134.2	142.4	139.1	139.8	1.63	10.0	4.2	136.3	1.34	10.6	7.7	12	XX
YGRAXW	128.1	135.1	139.0	134.5	134.2	0.64	11.4	4.5	134.8	1.04	11.9	3.1	12	LZ
YP6KQN	129.0	125.2	126.2	130.7	127.8	-0.50	12.2	2.5	127.7	-0.42	10.2	3.6	12	LA
YP6KQN_AL	132.0	136.6	134.9	131.2	133.7	0.54	11.0	2.5	132.9	0.65	11.9	5.0	12	XX
YW4WZY	138.4	135.2	137.8	131.0	135.6	0.88	11.6	3.4	135.6	1.21	11.6	3.4	4	XX
Z9VTLX_AL	132.7	128.8	134.3	134.6	132.6	0.35	11.4	2.7	134.8	1.04	10.5	4.3	12	AL

Consensus (All Labs) Results									
Wk Mean	131.58	130.63	130.70	130.65	Month Mean	130.61	Grand Mean	129.70	
Avg SDr	10.71	11.11	11.02	10.76	Avg SD	10.80	Avg SD	10.65	
SD btwn Labs	6.92	6.03	6.76	6.20	SD btwn Labs	5.65	SD btwn Labs	4.89	
Labs Incl	45	43	43	43	SD btwn Wks	3.41	SD btwn Wks	4.60	
Labs Excl	0	1	2	1	Labs Incl	43	Labs Incl	43	
Labs not Rcvd	0	1	0	1					

Key to Instrument Codes Reported by Participants

AH	Perkins Model AH	AL	L & W Autoline 400
LA	L&W Bursting Strength Tester	LC	L&W Autoline (206 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 #680
May 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	
36AQRX	99.8	95.7	97.5	93.2	96.5	-0.48	3.2	2.8	95.3	-1.10	3.6	2.6	16	LD
4NWX2X	100.6	100.7	100.7	100.5	100.6	0.93	3.0	0.1 L	98.0	-0.06	2.9	3.4	14	LD
6ELWFW	103.9	102.0	100.4	99.6	101.5	1.23	3.0	1.9	100.2	0.80	3.4	2.4	8	LD
77KATP	98.9 L	98.9 L	99.1 L	99.0 L	99.0	0.37	0.3	0.1 L	97.0	-0.41	0.4	2.1	8	RS
77QG4X	100.1	98.3	No DATA	No DATA	99.2	0.45	3.1	1.3	99.7	0.62	2.9	0.9 L	14	LG
7E2JPY	90.6 L	90.7 *	88.7 *	91.4	90.3	-2.63 *	2.1	1.2	91.9	-2.40 *	2.5	2.3	16	LD
7FVBEP	99.6	98.6	98.4	101.2	99.5	0.53	2.9	1.3	99.3	0.45	3.0	1.7	16	XX
7JWBXV	97.9	99.3	99.7	99.5	99.1	0.41	2.9	0.8	99.0	0.33	2.7	1.0	16	LD
8JA7VM	92.1	126.8 XH	90.0	93.1	100.5	0.89	5.8	17.6 H	97.9	-0.09	5.9	10.0 H	11	XX
8V9WMM	97.4	98.8	97.3	95.5	97.2	-0.23	3.5	1.3	99.6	0.59	4.2	4.7	16	XX
AEPBQL	97.7	99.5	102.0	96.7	99.0	0.36	3.1	2.3	99.2	0.41	2.9	1.8	16	TH
CE2LJB	100.2	99.3	99.7	99.7	99.7	0.62	3.6	0.4 L	101.6	1.34	3.9	3.2	16	MB
CRM2MA	100.0 L	100.0	98.4	98.1	99.1	0.42	2.3	1.0	98.2	0.02	2.5	1.4	16	LD
D3NNDL	96.0	98.4	96.3	98.4	97.3	-0.22	2.3	1.3	96.7	-0.56	2.5	0.9	16	LD
FW8ZRF	100.8 L	100.3 L	99.5	100.6 L	100.3	0.83	1.6	0.6 L	100.8	1.06	2.1	1.6	16	LD
HV9WQ4	77.3 X	72.5 X	77.6 X	72.4 X	75.0	-7.94 X	4.4	2.9	77.6	-7.94 X	4.6	2.8	16	MZ
JJVWUB	67.3 X	67.8 X	67.6 X	65.2 XH	67.0	-10.71 X	4.2	1.2	68.2	-11.60 X	4.7	2.6	16	LD
KNJXBF	97.9	97.6	105.1	99.6	100.0	0.73	3.0	3.5	100.1	0.79	3.2	2.0	16	LD
KY2HVC	95.7	95.2	95.5	95.9	95.6	-0.80	2.6	0.3 L	97.3	-0.31	1.7	2.7	16	TU
LDDBY9	96.4	99.0	99.0	96.8	97.8	-0.05	4.0	1.4	99.2	0.42	3.7	2.6	16	LD
LKY7YD	98.1	98.7	98.9	98.4	98.5	0.21	2.9	0.4 L	97.6	-0.19	3.4	0.9 L	16	LC
MAX6ZD	102.1	101.2	103.0	100.5	101.7	1.31	3.5	1.1	99.3	0.45	3.3	4.6	16	LD
MKARN6	96.6	96.5	98.3	99.2	97.6	-0.10	3.1	1.3	96.8	-0.52	2.9	1.2	16	LD
MYQM2F	95.5	96.9	97.5	100.1	97.5	-0.14	2.8	1.9	98.2	0.02	3.3	1.8	16	LD
PCTT8Y	95.3	94.3	93.2	95.4	94.6	-1.17	3.1	1.0	95.7	-0.93	3.1	1.1	16	EM
PF97A8	96.9	95.8	96.5	97.2	96.6	-0.45	3.0	0.6 L	97.9	-0.10	2.7	1.0	16	LD
R628E3	98.5	97.9	98.1	98.6	98.3	0.12	2.4	0.3 L	97.7	-0.17	2.7	2.5	16	LD
RF3V7Z	87.4 *H	88.3 *	88.0 *H	90.9	88.6	-3.21 X	5.3	1.5	95.5	-1.00	4.1	4.4	16	EM
RFN9UD	94.7	91.8	93.6	92.6	93.2	-1.64	2.6	1.3	93.0	-1.99 *	3.4	2.1	16	LC
T6KBL4	98.9	100.4	98.4	96.2	98.5	0.19	3.3	1.7	98.7	0.22	2.9	1.7	16	LC
U2F3VX	88.5 *H	99.2 H	95.8 H	91.9 H	93.8	-1.42	8.6	4.7	100.8	1.06	6.0	5.9	16	TU
VCBUGU	99.4	99.3	100.7	96.0	98.9	0.32	2.3	2.0	99.4	0.50	2.8	2.5	16	TX
VLXVW4	91.5	91.3	91.1	91.0	91.2	-2.32 *	3.2	0.2 L	92.2	-2.30 *	2.9	1.5	16	LC
VTF3VW	82.2 XH	90.8 *H	72.7 XH	90.9 H	84.1	-4.77 X	6.0	8.6 H	86.6	-4.45 X	6.5	5.1	12	LD
Y3PZR3	96.7	97.6	96.2	97.9	97.1	-0.28	3.0	0.8	97.4	-0.28	3.4	1.5	16	LD



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

Report #680
May 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
YDCYKT	98.2	99.7	101.1	97.5	99.1	0.42	4.9	1.6	100.9	1.07	4.6	2.7	16	LD
YUYEL4	101.3	108.5 XL	105.8 *	101.9	104.4	2.23 *	2.6	3.4	104.7	2.54 *	3.1	3.8	15	TU
Z9VTLX	102.2	103.0	76.8 XH	102.2	96.0	-0.65	6.2	12.9 H	97.3	-0.30	5.8	9.9 H	16	LZ

Consensus (All Labs) Results														
Wk Mean	97.35	97.50	97.68	97.06	Month Mean	97.92			Grand Mean	98.12				
Avg SDr	3.70	3.49	3.55	3.13	Avg SD	3.51			Avg SD	3.44				
SD btwn Labs	3.76	3.47	4.15	3.37	SD btwn Labs	2.89			SD btwn Labs	2.58				
Labs Incl	35	34	33	35	SD btwn Wks	4.09			SD btwn Wks	3.49				
Labs Excl	3	4	4	2	Labs Incl	34			Labs Incl	35				
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
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 216
Ring Crush, 52 lb Linerboard - 52M1
 TAPPI Official Test Method T822

Report #680
May 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	
36AQRX	130.2	135.9	136.6	133.6	134.1	0.38	4.5	2.9	133.6	0.11	5.0	2.3	12	LD
4NWX2X	140.8	142.1	141.6	141.0	141.3	1.70	5.9	0.6 L	139.8	1.65	4.6	1.5	10	LD
6ELWFW	137.2	131.6	133.7	134.1	134.1	0.39	4.3	2.3	134.1	0.25	4.3	2.3	4	LD
77KATP	141.2 L	141.5 L	141.8 L	141.7 L	141.5	1.74	0.8	0.2 L	141.5	2.08 *	0.8	0.2 L	4	RS
77QG4X	131.9	134.7	No DATA	No DATA	133.3	0.25	4.3	2.0	134.8	0.41	3.8	2.7	10	LY
7E2JPY	129.6 L	128.3 L	122.4 *	123.3 L	125.9	-1.10	2.7	3.6	127.6	-1.34	4.2	2.6	12	LD
7FVBEP	131.2	132.5	133.8	134.7	133.0	0.20	3.6	1.5	137.5	1.07	4.1	5.7	12	LZ
7JWBXV	132.2	134.2	129.3	129.5	131.3	-0.12	4.0	2.3	131.9	-0.29	3.8	1.9	12	LD
8JA7VM	126.7	93.7 X	126.4	126.6	118.4	-2.46 *	6.8	16.4 H	127.0	-1.49	8.3	10.9 H	12	XX
8V9WMM	135.3	136.4	134.6	134.3	135.2	0.58	3.6	0.9	133.3	0.06	4.5	2.1	12	XX
AEPBQL	133.7	131.0	131.0	134.9	132.7	0.13	4.7	2.0	133.0	-0.03	4.6	1.8	12	TH
CE2LJB	140.3 H	135.8	138.0	138.8	138.2	1.13	7.4	1.9	137.7	1.12	5.9	1.7	12	MB
CRM2MA	132.7	137.4	134.3	130.7	133.8	0.33	3.6	2.8	133.1	-0.01	4.1	2.4	12	LD
D3NNDL	128.8	128.6	129.6	128.8	129.0	-0.54	3.9	0.4 L	129.7	-0.85	3.4	1.8	12	LD
FW8ZRF	137.5	137.8	131.3	135.5 L	135.5	0.65	3.6	3.0	135.5	0.60	3.1	1.9	12	LD
HV9WQ4	106.8 X	113.6 XH	107.1 X	104.7 X	108.0	-4.33 X	8.2	3.8	110.6	-5.54 X	6.8	4.8	12	MZ
JJVWUB	94.4 X	95.4 X	96.2 X	96.7 X	95.7	-6.57 X	4.1	1.0	95.6	-9.25 X	4.1	1.1	12	LD
KNJXBF	137.6	135.7	134.3	132.6	135.0	0.56	4.3	2.1	134.2	0.26	4.0	3.4	12	LD
KY2HVC	134.7 L	133.7	133.9	134.1 L	134.1	0.39	2.5	0.4 L	130.9	-0.53	1.6	2.3	12	TU
LDDBY9	130.5	131.2	132.2	128.2	130.5	-0.26	3.2	1.7	132.8	-0.07	3.6	2.4	12	LD
LKY7YD	127.6	128.8	129.4	129.1	128.7	-0.59	4.1	0.8	129.1	-0.98	4.3	1.0 L	12	LC
MAX6ZD	136.4	136.6	135.6	132.5	135.3	0.60	4.6	1.9	132.2	-0.22	4.4	3.2	12	LD
MKARN6	128.0	128.7	128.9	130.3	129.0	-0.54	3.1	1.0	128.8	-1.06	3.3	2.6	12	LD
MYQM2F	135.6	132.0	133.9	137.1	134.6	0.49	4.3	2.2	136.9	0.92	4.8	3.5	12	LD
PCTT8Y	127.7	127.3	124.3	127.6	126.7	-0.95	3.8	1.6	130.6	-0.60	3.7	3.6	12	EM
PF97A8	134.6	134.9	132.8	130.8	133.3	0.24	4.5	1.9	134.1	0.25	4.1	1.7	12	LD
R628E3	137.7	131.2	134.8	135.7	134.8	0.52	3.8	2.7	131.7	-0.35	3.6	3.1	12	LD
RF3V7Z	130.4	129.7	127.4	128.9	129.1	-0.52	4.7	1.3	131.1	-0.50	4.8	2.8	12	EM
RFN9UD	124.3	125.0	131.8	124.4 L	126.4	-1.01	3.8	3.6	126.9	-1.52	4.2	2.9	12	LC
T6KBL4	130.5	132.8	129.9	132.0	131.3	-0.12	3.9	1.3	131.9	-0.30	3.7	1.5	12	LC
U2F3VX	130.2 H	124.3 H	126.9 H	127.8 H	127.3	-0.84	12.1	2.4	136.2	0.77	10.1	8.0 H	12	TU
VBUGU	140.9	141.0	134.8	120.7 *	134.3	0.43	4.8	9.6 H	133.9	0.21	4.9	5.7	12	TX
VLXVW4	120.8 *	121.7 *	122.8 *	123.5	122.2	-1.77	4.3	1.2	125.3	-1.92 *	4.2	2.6	12	LC
VTF3VW	114.4XH	122.5 H	114.9XH	119.4 *H	117.8	-2.56 *	9.0	3.9	119.8	-3.27 X	9.4	4.1	8	LD
Y3PZR3	128.6	128.4	127.4	130.6	128.8	-0.58	3.3	1.3	127.2	-1.44	3.6	2.0	12	LD



Containerboard Interlaboratory Testing Program
 Analysis 216
Ring Crush, 52 lb Linerboard - 52M1
 TAPPI Official Test Method T822

Report #680
May 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
YDCYKT	135.2	142.2	140.5	140.2 H	139.5	1.37	7.6	3.0	142.2	2.24 *	7.3	3.4	12	LD
YUYEL4	133.2	140.9	138.7	132.6	136.3	0.79	3.9	4.1	136.2	0.75	4.2	3.1	12	TU
Z9VTLX	137.9	138.0	138.6	138.0	138.1	1.12	5.0	0.3 L	136.2	0.75	6.2	8.7 H	12	LZ

Consensus (All Labs) Results														
Wk Mean	132.90	132.97	132.45	131.53	Month Mean	131.96			Grand Mean	133.10				
Avg SDr	4.87	4.66	4.82	5.23	Avg SD	4.97			Avg SD	4.72				
SD btwn Labs	4.91	5.48	5.02	5.47	SD btwn Labs	5.52			SD btwn Labs	4.06				
Labs Incl	35	35	34	35	SD btwn Wks	3.81			SD btwn Wks	3.82				
Labs Excl	3	3	3	2	Labs Incl	36			Labs Incl	35				
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	LY L&W Crush Tester 958
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 223

Report #680

May 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	
2ZZDAY_AL	24.4	23.5 L	24.7	25.5	24.5	0.15	1.6	0.8	24.3	-0.14	1.9	0.7	16	AL
36AQRX	23.2 H	23.2	23.6	22.6	23.1	-1.02	2.4	0.4	23.7	-0.87	2.3	1.0	16	LA
3NWPMU_AI	25.9	25.9	25.7	26.0	25.9	1.31	1.5	0.1 L	25.6	1.30	1.5	0.5	16	AL
4NWX2X	25.8 H	24.0	22.9	22.7	23.8	-0.42	2.1	1.4	24.4	-0.03	2.1	1.2	13	LW
6ELWFW_AL	26.2 *	25.7	24.8	25.5	25.6	1.05	1.9	0.6	25.7	1.47	1.8	0.6	8	AL
6FFP6N_AL	27.8 X	27.1 *	27.6 *	26.7 *	27.3	2.53 *	2.0	0.5	27.4	3.46 X	2.2	0.7	16	AL
6NQRQP	23.3 H	23.3 H	24.6	22.8 H	23.5	-0.73	3.2	0.8	23.5	-1.07	2.6	0.7	16	LH
77QG4X	25.0	24.4	24.5	24.7 L	24.6	0.24	1.7	0.3	25.0	0.69	1.9	0.6	16	BK
7E2JPY	23.4	22.0 *	23.1	21.2 *L	22.4	-1.65	1.6	1.0	23.3	-1.32	1.9	1.9	16	TT
7FVBEP	24.7 L	23.3	24.3	23.7	24.0	-0.30	1.9	0.6	25.4	1.14	2.2	1.7	16	LZ
7JWBXV_AL	25.0 L	24.7	22.8	23.9	24.1	-0.21	1.4	1.0	24.4	-0.04	1.5	0.8	16	AL
8BZULW	24.2	24.6 H	23.8 L	23.9	24.1	-0.21	2.0	0.3	23.7	-0.85	1.8	0.6	16	LH
8JA7VM	23.7	23.5	23.5	24.0	23.7	-0.56	1.8	0.2	24.2	-0.24	1.7	0.8	11	XX
ADG2YN	24.0	No DATA	26.1	24.1 H	24.7	0.31	4.7	1.2	24.6	0.17	2.5	0.6	14	LU
BB3XGH_AL	26.0 L	25.0 L	27.0 L	25.0 L	25.8	1.21	0.0	1.0	37.3	14.80 X	0.0	12.5 H	8	AL
CE2LJB	24.0	24.3	24.1	23.9	24.1	-0.24	1.8	0.2	24.6	0.15	1.9	0.9	16	LA
CRM2MA	23.2	23.2 L	23.8	23.1	23.3	-0.87	1.4	0.3	23.4	-1.19	1.7	0.4	16	LY
D3NNDL_AL	24.5	24.8	23.6	23.6	24.1	-0.17	1.7	0.6	23.9	-0.66	3.4	0.4	16	XX
F22WEL	25.6	24.9	24.5	24.4	24.9	0.46	1.7	0.5	24.5	0.12	1.8	0.6	16	LY
H3R3MB	No DATA	No DATA	No DATA	22.8 L	22.8	-1.32	1.2	0.0	22.6	-2.10 *	1.1	0.4	4	LH
HV9WQ4	23.6	23.4	23.4	22.2	23.1	-1.02	1.9	0.6	24.1	-0.42	2.1	1.2	16	XX
JJVWUB	24.5	24.3	25.6	24.6	24.8	0.35	1.8	0.6	24.3	-0.17	1.8	0.6	16	LY
JJVWUB_AL	25.6	24.8	25.4	24.7	25.1	0.67	1.8	0.4	24.5	0.08	1.8	0.6	16	AL
KNJXBF_AL	24.5	25.3	25.5	24.4	24.9	0.47	2.0	0.6	24.6	0.13	2.0	0.8	14	AL
KPQFAB	23.8	24.5	22.7	23.6 L	23.7	-0.59	1.8	0.8	23.1	-1.59	1.8	1.3	16	XX
KY2HVC	21.2 XL	21.4 *L	22.2 L	22.0	21.7	-2.26 *	1.2	0.5	23.7	-0.90	1.6	1.5	16	XX
LDDBY9	24.0	24.5	23.8	24.4	24.2	-0.13	1.8	0.3	24.4	-0.05	1.8	0.8	16	LY
LKY7YD	23.1	No DATA	23.0	No DATA	23.1	-1.10	1.7	0.0	24.2	-0.33	1.9	1.0	10	LU
MKARN6_AL	25.1	24.7	24.8	22.9	24.4	0.03	2.0	1.0	24.2	-0.24	2.2	1.0	9	AL
MYQM2F	25.5	24.3	25.0	24.3	24.8	0.38	2.0	0.6	25.1	0.81	2.0	0.4	12	LH
NMVT8X	23.5	24.2	24.1	23.5	23.8	-0.44	1.6	0.4	23.5	-1.04	1.6	0.5	8	LH
QDGQX3	23.5	22.9	22.2	22.1	22.7	-1.43	1.7	0.7	23.4	-1.18	1.9	1.0	16	XX
R628E3	24.5	24.5	23.6	24.8	24.4	0.01	1.7	0.5	24.3	-0.11	1.7	0.6	16	LA
RFH2J4	24.6	24.3 L	25.0	24.9 L	24.7	0.31	1.3	0.3	24.7	0.31	1.3	0.3	16	LH
RFN9UD	25.3	24.7	23.6	24.3	24.5	0.12	1.7	0.7	24.9	0.57	1.7	0.6	16	LA



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

Report #680
May 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	
T6KBL4	24.7	24.5	23.5	23.8	24.1	-0.19	1.6	0.6	24.1	-0.45	1.8	0.6	16	LU
T9H2K3_AL	30.1 X	33.0 X	30.9 XH	31.1 X	31.3	5.95 X	2.3	1.2	31.2	7.83 X	2.4	1.3	16	AL
U2F3VX	24.4	24.3 H	25.2	25.4	24.8	0.42	2.7	0.6	24.9	0.55	2.1	1.0	16	LA
U4MKTU	24.1	25.1	24.2	24.6	24.5	0.14	2.2	0.5	24.8	0.42	2.2	0.6	16	LH
V9WXBT	24.4	24.5	25.9	23.9	24.7	0.29	1.9	0.9	25.1	0.80	1.8	0.8	16	LA
VLXVW4	22.6 *	22.1 *	22.5	23.0	22.6	-1.53	1.9	0.4	22.6	-2.13 *	1.7	0.4	16	LY
VMTEY6	23.8	24.5	24.0 L	24.2	24.1	-0.20	1.5	0.3	23.9	-0.64	1.7	0.5	16	LW
VNZRHR_AL	25.7	26.4	26.9	26.1	26.3	1.66	2.1	0.5	25.6	1.32	2.2	0.8	16	AL
VTF3VW	23.8 L	24.1 L	24.5 L	24.7 L	24.2	-0.08	0.0	0.4	25.2	0.82	0.0	0.8	16	LH
VYLVPR	24.4	24.7	22.8	23.9	23.9	-0.34	2.1	0.8	26.2	1.98 *	1.7	1.5	16	LA
W2KHW2	24.9	24.4	24.0	24.0	24.3	-0.02	1.6	0.4	24.4	-0.09	1.7	0.6	16	LU
Y3PZR3	24.3	24.5	24.4	24.2	24.4	0.02	1.6	0.1 L	24.3	-0.17	1.8	0.6	16	LA
Y877PW_AL	24.6	28.3 X	26.8	29.3 X	27.2	2.48 *	1.9	2.1 H	26.6	2.51 *	4.2	1.6	16	AL
YDCYKT	33.6 XH	35.1 X	33.7 XH	34.8 X	34.3	8.54 X	3.2	0.7	34.3	11.41 X	3.2	0.7	4	ID
YGRAXW	23.6	23.7	22.1	21.5 *	22.7	-1.41	2.3	1.1	23.8	-0.76	2.3	1.3	16	LH
YP6KQN_AL	26.5 *	27.2 *	28.2 *	26.6 *	27.1	2.36 *	1.8	0.8	25.9	1.69	2.0	2.9 H	16	AK
YUYEL4	24.8 L	25.1	26.2	24.9	25.3	0.78	1.7	0.6	24.8	0.44	1.9	0.8	16	LA
Z6CYKQ	24.4	25.1	26.2	24.9	25.1	0.68	1.9	0.8	25.6	1.30	2.1	0.9	16	TT

Consensus (All Labs) Results												
Wk Mean	24.46	24.37	24.44	24.04	Month Mean	24.34		Grand Mean	24.44			
Avg SDr	1.82	1.97	1.90	2.09	Avg SD	1.96		Avg SD	2.02			
SD btwn Labs	0.90	1.12	1.44	1.22	SD btwn Labs	1.17		SD btwn Labs	0.87			
Labs Incl	48	47	50	49	SD btwn Wks	0.71		SD btwn Wks	0.98			
Labs Excl	4	3	2	3	Labs Incl	51		Labs Incl	49			
Labs not Rcvd	1	3	1	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	ID	IDM Compression Tester
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 224

Report #680
May 2026

STFI, 52 lb Linerboard - 52M1

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	
2ZZDAY_AL	31.6	30.0	30.1	31.0	30.7	-0.90	2.2	0.8	30.5	-1.15	2.4	0.7	11	AL
36AQRX	29.3	32.4	32.0	28.6	30.6	-0.97	2.4	1.9	31.7	-0.11	2.4	1.8	12	LA
3NWPMU_AI	33.9	33.6	33.1	34.5 L	33.7	1.47	2.1	0.6	32.4	0.46	1.9	1.1	12	AL
4NWY2X	30.7	32.0	31.4	29.6	30.9	-0.68	2.7	1.0	31.8	-0.03	3.7	1.2	10	LW
6ELWFW_AL	33.3	33.7	31.8	33.3	33.0	0.91	2.9	0.8	33.0	1.04	2.9	0.8	4	AL
6FFP6N_AL	34.6	34.7	33.9	34.6	34.4	2.01 *	2.7	0.4	34.6	2.38 *	2.7	0.9	12	AL
6NQRQP	28.9 H	28.5 *	30.2 H	27.1 *H	28.7	-2.41 *	4.3	1.3	29.6	-1.99 *	3.8	1.4	12	LH
77QG4X	32.0	32.4	32.1	30.7	31.8	-0.03	2.2	0.8	32.2	0.30	2.4	0.8	12	BK
7E2JPY	28.2 *L	25.6 X	27.1 X	30.3	27.8	-3.08 X	2.2	2.0	35.6	3.25 X	2.3	9.5 H	12	TT
7FVBEP	29.4 H	31.5	33.4	30.5	31.2	-0.49	2.9	1.7	32.6	0.65	2.9	1.4	12	LZ
7JWBXV_AL	32.8	31.8	32.6	31.7	32.2	0.31	1.7	0.6	31.5	-0.27	1.9	0.9	12	XX
8BZULW	31.9	30.7	30.7	30.8	31.0	-0.62	2.3	0.6	30.9	-0.79	2.3	0.8	12	LH
8JA7VM	30.5	31.0	30.5	31.0	30.8	-0.82	2.4	0.3	31.5	-0.26	2.6	0.7	12	XX
ADG2YN	32.0 L	No DATA	31.4	30.9	31.4	-0.29	2.1	0.6	32.3	0.38	2.1	1.2	10	LU
BB3XGH_AL	34.0 L	36.0 *L	33.0 L	35.0 *L	34.5	2.05 *	0.0	1.3	34.6	2.44 *	0.0	1.7	8	AL
CE2LJB	31.1	32.0	31.5 L	33.3 H	31.9	0.09	2.6	1.0	31.5	-0.31	2.5	0.7	12	LA
CRM2MA	30.7	31.5	33.4	31.8	31.8	0.01	2.4	1.1	30.6	-1.06	2.4	1.2	12	LY
D3NNDL_AL	31.5	30.6	31.4	31.9	31.3	-0.38	2.4	0.5	31.0	-0.75	2.2	0.6	12	XX
F22WEL	31.6	32.0	31.1	32.2	31.7	-0.09	2.8	0.5	31.9	0.06	2.9	1.1	12	LU
FW8ZRF	33.3	32.7	34.1	33.7	33.5	1.25	2.3	0.6	33.7	1.61	2.7	0.7	12	LH
HV9WQ4	30.5	30.7	31.2	30.5	30.7	-0.84	3.0	0.4	31.8	-0.04	2.9	1.4	12	XX
JJVWUB	31.2	31.4	30.8	30.5	31.0	-0.65	2.0	0.4	31.5	-0.33	1.9	0.5	12	LY
JJVWUB_AL	32.6	31.2	31.8 L	32.4 L	32.0	0.13	1.7	0.6	31.4	-0.41	1.7	1.0	12	AL
KNJXBF_AL	31.1	31.0	35.1 *	No DATA	32.4	0.46	2.3	2.4 H	30.9	-0.85	3.0	2.1	7	AL
KPQFAB	30.2 H	30.3	32.2 H	29.9	30.7	-0.89	3.5	1.1	30.5	-1.17	2.7	1.2	12	XX
KY2HVC	26.9 X	26.8 X	27.1 XL	27.6 *L	27.1	-3.62 X	2.0	0.4	29.7	-1.88	1.6	2.0	12	XX
LDDBY9	31.1	30.0	31.1	31.5	30.9	-0.68	2.4	0.6	31.0	-0.72	2.3	0.6	12	LZ
LKY7YD	33.7	No DATA	29.4 *	No DATA	31.5	-0.22	3.1	3.0	31.8	-0.01	2.4	1.4	10	LU
MKARN6_AL	33.0	33.9 H	33.2	32.3	33.1	0.98	3.3	0.7	31.6	-0.20	2.8	1.5	10	XX
MYQM2F	32.4	31.1	31.9	31.6 H	31.8	-0.05	2.7	0.5	33.2	1.23	2.8	1.4	12	LH
NMVT8X	31.5	31.3	32.0	31.9	31.7	-0.13	2.1	0.3	31.7	-0.15	2.1	0.3	4	LH
QDGQX3	31.2	29.3	29.9	30.9	30.3	-1.15	3.0	0.9	30.4	-1.28	2.6	0.6	12	XX
R628E3	30.6	31.7	32.1	31.2	31.4	-0.33	2.2	0.6	31.4	-0.35	2.5	0.8	12	LU
RFH2J4	31.3	31.3	31.8 L	31.5	31.5	-0.28	1.6	0.2	31.6	-0.18	1.6	0.3	12	LH
RFN9UD	31.7	32.7 L	31.4	31.3	31.8	-0.04	2.1	0.6	32.2	0.29	2.1	0.8	12	LA



Containerboard Interlaboratory Testing Program
Analysis 224

Report #680
May 2026

STFI, 52 lb Linerboard - 52M1
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	
T6KBL4	30.9	31.6	31.9	31.9	31.6	-0.20	2.3	0.5	31.4	-0.40	2.3	0.5	12	LU
T9H2K3_AL	41.2 X	42.2 X	40.4 X	41.0 XH	41.2	7.18 X	3.3	0.7	39.2	6.41 X	3.1	2.0	12	AL
U2F3VX	34.1 L	33.6	31.6	33.6	33.2	1.09	2.0	1.1	32.4	0.46	3.2	1.3	12	LA
U4MKTU	33.8	32.6	32.1	31.8	32.6	0.57	2.7	0.9	32.1	0.25	2.7	0.7	12	LH
V9WXBT	31.6	33.5	34.3	32.8	33.0	0.92	2.8	1.1	32.7	0.78	2.7	0.8	12	LA
VLXVW4	28.9	29.1	30.6	28.2	29.2	-2.01 *	2.4	1.0	29.3	-2.17 *	2.3	0.7	12	LZ
VMTEY6	30.8	30.4	30.0 L	30.8	30.5	-1.02	2.0	0.4	30.5	-1.12	2.0	0.8	9	LW
VNZRHR_AL	33.9	33.2	34.1	34.7	34.0	1.65	3.1	0.6	32.7	0.77	2.9	1.2	12	AL
VTF3VW	30.9 L	31.3 L	32.6 L	30.4 L	31.3	-0.42	0.0	0.9	32.2	0.28	0.0	1.4	12	LH
VYLVPR	31.1 H	33.9	31.8	32.7	32.4	0.42	3.6	1.2	33.2	1.16	4.8	2.1	12	LA
W2KHW2	33.7	34.1	33.6	32.3	33.4	1.22	2.5	0.8	32.7	0.74	2.5	0.8	12	LU
Y3PZR3	32.5	30.4 L	30.2 L	31.6	31.2	-0.52	2.0	1.1	31.7	-0.09	2.3	1.2	12	LW
Y877PW_AL	34.5 H	34.8	33.3	36.9 X	34.9	2.34 *	3.3	1.5	33.8	1.68	2.8	1.2	12	AL
YDCYKT	45.1 XH	43.4 X	44.5 X	45.5 X	44.6	9.81 X	3.8	0.9	44.6	11.17 X	3.8	0.9	4	ID
YGRAXW	31.6	29.3	31.1	30.6	30.6	-0.90	3.2	1.0	30.7	-1.02	3.0	0.8	12	LZ
YP6KQN_AL	29.9	31.6	30.8	29.4 L	30.4	-1.07	1.9	1.0	32.4	0.52	2.2	2.0	12	AK
YUYEL4	32.6	31.3	33.0	33.8	32.7	0.65	2.1	1.0	32.5	0.60	2.4	0.9	12	LA
Z6CYKQ	32.4	33.3	31.9	32.5	32.5	0.53	2.6	0.6	33.0	1.01	3.0	0.9	8	XX

Consensus (All Labs) Results													
Wk Mean	31.73	31.85	31.92	31.51	Month Mean	31.83			Grand Mean	31.83			
Avg SDr	2.68	2.43	2.68	2.46	Avg SD	2.58			Avg SD	2.62			
SD btwn Labs	1.54	1.61	1.29	1.75	SD btwn Labs	1.31			SD btwn Labs	1.15			
Labs Incl	50	47	49	48	SD btwn Wks	1.02			SD btwn Wks	1.14			
Labs Excl	3	4	4	3	Labs Incl	49			Labs Incl	50			
Labs not Rcvd	0	2	0	2									

Key to Instrument Codes Reported by Participants

AK	L & W Autoline 300	AL	L & W Autoline 400
BK	Buchel Strip Compression Tester BK-155	ID	IDM Compression Tester
LA	L&W Autoline (224 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 with 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 228
Roughness - Stylus Method, 42 lb Linerboard - 42N1
 TAPPI Official Test Method T575

Report #680
May 2026

WebCode	Monthly Results				Cumulative Results				
	Mean	CPV	SD		Mean	CPV	SD Months	Months	Inst
2ZZDAY_AL	118.5	-1.60	14.00		125.5	-1.56	5.79	4	AL
36AQRX	125.5	-1.27	16.39		137.2	-0.95	15.25	4	LA
3NWPMU_AL	167.7	0.77	11.87		137.7	-0.93	23.98	4	AL
4NWy2X	130.0	-1.05	16.68		134.7	-1.08	4.99	4	XX
6ELWFW	135.2	-0.80	15.02		133.9	-1.12	8.54	4	LS
6ELWFW_AL	175.9	1.17	30.65	H	165.5	0.53	14.63	2	AL
6FFP6N_AL	173.7	1.06	16.19		170.7	0.79	3.48	4	AL
ADG2YN	154.5	0.13	11.46		167.3	0.62	13.09	4	EV
CE2LJB	173.5	1.05	28.88	H	176.0	1.07	3.99	4	LA
CRM2MA	158.0	0.30	26.23		163.2	0.41	5.21	4	LS
H3R3MB	155.0	0.16	6.83	L	179.7	1.26	25.91	4	EV
HV9WQ4	161.3	0.46	23.15		166.5	0.58	7.74	4	EV
JJVWUB	167.7	0.77	20.00		161.7	0.32	4.70	4	XX
JJVWUB_AL	162.8	0.53	16.84		151.0	-0.23	13.70	4	AL
LDDBY9	161.4	0.47	14.61		183.3	1.45	19.13	4	EV
LKY7YD	134.6	-0.83	17.17		136.1	-1.01	2.05	2	EV
T9H2K3_AL	98.7	-2.56 *	16.15		84.6	-3.69 X	38.40 H	4	AL
U2F3VX	174.8	1.11	16.83		176.0	1.07	6.65	4	LA
U4MKTU	164.3	0.61	12.00		161.2	0.30	2.38 L	4	EV
UH4F86	180.6	1.39	24.86		166.7	0.59	9.56	4	LS
V9WXBT	149.0	-0.13	15.48		157.6	0.11	11.05	4	LA
VLXVW4	168.3	0.80	14.44		164.7	0.48	7.68	4	EV
VNZRHR_AL	135.3	-0.79	18.04		138.9	-0.86	7.51	4	AL
VYLVPR	144.0	-0.37	10.50		165.7	0.54	14.97	4	LA
Y3PZR3	154.3	0.12	23.85		165.9	0.54	10.22	4	LA
Y877PW_AL	134.4	-0.84	17.64		134.4	-1.10	4.45	4	AL
YGRAXW	134.0	-0.86	20.92		147.3	-0.42	15.11	4	LS
YUYEL4	178.0	1.27	11.11		178.0	1.17	14.38	4	LA
Z9VTLX_AL	129.2	-1.09	9.12		105.8	-2.58 *	41.93 H	4	AL

Consensus (All Labs) Results			
Month Mean	151.73	Grand Mean	155.42
Avg SD	18.05	Avg SD Months	14.16
SD btwn Labs	20.72	SD btwn Labs	19.21
Labs Incl	29	Labs Incl	28



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

Report #680
May 2026

Key to Instrument Codes Reported by Participants

AL	L & W Autoline 400	EV	Emveco Microgauge 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 #680
May 2026

WebCode	Monthly Results			Cumulative Results				Inst
	Mean	CPV	SD	Mean	CPV	SD Months	Months	
6ELWFW_AL	409.2	1.79	11.90	408.1	1.80	1.64	2	AL
6FFP6N_AL	373.0	-0.22	7.56	383.8	0.49	8.46	4	AL
7JWBXV_AL	369.6	-0.41	9.61	371.3	-0.18	1.45	L 4	AL
CRM2MA	363.9	-0.72	12.11	367.8	-0.36	3.97	4	TS
D3NNDL_AL	382.0	0.28	7.70	381.2	0.35	3.53	4	XX
EHUEKJ	371.1	-0.32	4.77	371.1	-0.18	0.00	1	XX
HV9WQ4	387.7	0.59	10.25	382.7	0.43	4.89	4	XX
JJVWUB_AL	380.4	0.19	4.72	378.6	0.22	1.88	L 4	AL
KNJXBF_AL	389.1	0.67	16.80	H 383.4	0.48	5.60	4	AL
RF3V7Z	345.0	-1.77	6.27	344.1	-1.63	1.62	L 4	TS
T6KBL4	384.1	0.40	6.90	382.3	0.42	1.62	L 4	PP
VNZRHR_AL	346.9	-1.67	8.27	351.1	-1.26	3.57	4	AL
VTF3VW	380.3	0.19	6.86	371.4	-0.17	9.08	3	XX
Y877PW_AL	366.1	-0.60	9.17	340.6	-1.82	46.82	H 4	AL
YP6KQN_AL	405.8	1.60	3.82	L 400.8	1.41	12.77	4	AK

Consensus (All Labs) Results			
Month Mean	376.94	Grand Mean	374.54
Avg SD	9.06	Avg SD Months	13.68
SD btwn Labs	18.03	SD btwn Labs	18.66
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 #680
May 2026

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst
6ELWFW	93.6	-1.84	3.54	103.2	-1.50	7.57	4	TM
6FFP6N	97.6	-1.60	2.41	99.0	-1.77	0.99	L 4	TM
6NQRQP	129.4	0.28	5.68	132.6	0.39	4.02	4	HY
7JWBXV	127.8	0.18	5.72	133.3	0.43	4.12	4	LZ
8JA7VM	100.2	-1.45	5.37	99.5	-1.73	1.55	L 3	XX
ADG2YN	112.2	-0.74	4.55	118.6	-0.51	10.69	4	TM
D3NNDL	148.6	1.41	11.97	H 143.3	1.07	4.33	4	HY
JJVWUB	125.6	0.05	3.29	130.6	0.26	4.69	4	TM
JWFEME	103.2	-1.27	6.72	108.3	-1.17	5.99	4	TM
KNJXBF	132.6	0.47	7.26	135.3	0.56	2.68	4	TM
LDDBY9	148.4	1.40	1.95	140.1	0.87	8.75	4	HZ
LKY7YD	102.6	-1.31	7.89	96.4	-1.93	* 8.77	2	TM
MKARN6	140.8	0.95	5.63	142.9	1.05	2.03	4	HY
MYQM2F	132.8	0.48	4.97	131.6	0.32	1.70	2	HZ
R628E3	123.2	-0.09	3.83	125.7	-0.06	3.88	4	HZ
RFN9UD	129.2	0.27	6.26	127.6	0.07	2.83	4	TM
T6KBL4	135.4	0.63	3.05	135.9	0.60	1.68	4	HY
T9H2K3	116.8	-0.47	7.63	118.6	-0.51	3.13	4	TM
U4MKTU	122.6	-0.12	3.58	136.0	0.61	9.26	4	TM
UG8YU9	123.0	-0.10	5.70	123.1	-0.22	5.75	4	HZ
UH4F86	134.4	0.57	5.03	136.0	0.60	3.01	4	HY
VNZRHR	132.0	0.43	3.46	127.7	0.07	4.78	4	TM
Y3PZR3	156.0	1.85	8.31	156.3	1.91	* 2.27	4	HY
Z9VTLX	194.4	4.12	X 26.67	H 136.2	0.61	40.01	H 4	TM

Consensus (All Labs) Results			
Month Mean	124.70	Grand Mean	126.56
Avg SD	5.82	Avg SD Months	9.67
SD btwn Labs	16.92	SD btwn Labs	15.60
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	122.55	17.45	2.15	16
Modified Scott Bond Mechanics	137.95	12.44	13.25	4



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

Report #680
May 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
XX	Instrument make/model not specified by lab		



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

Report #680
May 2026

WebCode	Monthly Results				Cumulative Results			
	Mean	CPV	SD		Mean	CPV	SD Months	Months
2ZZDAY	23.8	-0.67	3.63		25.3	-0.17	3.43	4
4NWX2X	29.6	1.01	4.98	H	27.2	0.68	1.73	4
6ELWFW	25.4	-0.21	1.67		25.9	0.10	0.84	4
6FFP6N	26.0	-0.03	2.24		22.6	-1.39	4.21	4
6NQRQP	35.2	2.62 *	1.79		27.2	0.68	10.13 H	4
7JWBXV	21.0	-1.47	2.94		21.5	-1.89	1.43	4
8BZULW	24.8	-0.38	3.03		24.4	-0.57	2.66	4
ADG2YN	31.0	1.41	1.87		29.2	1.56	2.62	4
BB3XGH	25.0	-0.32	1.00		24.1	-0.71	1.27	2
CE2LJB	22.5	-1.04	1.73		24.4	-0.59	2.37	4
CRM2MA	24.5	-0.47	1.90		25.6	-0.06	3.16	4
D3NNDL	27.4	0.37	2.51		28.0	1.04	0.71	4
JJVWUB	25.8	-0.09	1.48		24.9	-0.35	1.09	4
LDDBY9	26.6	0.14	3.05		27.5	0.82	2.34	4
LKY7YD	24.2	-0.55	1.30		24.9	-0.35	0.99	2
MKARN6	23.8	-0.67	1.48		25.2	-0.24	1.15	4
MYQM2F	25.6	-0.15	1.52		25.9	0.08	1.83	4
T6KBL4	27.5	0.41	3.90		25.7	0.02	1.21	4
T9H2K3	30.5	1.26	1.62		27.4	0.75	2.15	4
U4MKTU	28.2	0.60	4.05		27.8	0.95	1.88	4
UH4F86	28.2	0.60	1.64		27.1	0.62	1.45	4
UVNUB6	22.0	-1.19	1.00		24.0	-0.77	3.07	4
VLXVW4	30.0	1.11	1.55		28.2	1.13	3.51	4
VNZRHR	27.8	0.49	3.42		28.5	1.29	1.86	4
VTF3VW	24.3	-0.52	1.35		24.4	-0.58	1.07	4
VYLVPR	20.8	-1.52	1.85		22.1	-1.61	0.93	4
Y3PZR3	28.2	0.60	2.05		27.4	0.75	0.60	4
Y877PW	25.6	-0.16	0.98		25.2	-0.22	1.77	4
YGRAXW	18.6	-2.17 *	2.07		20.3	-2.43 *	1.18	4
Z9VTLX	29.5	0.98	2.35		28.9	1.44	2.67	4

Consensus (All Labs) Results			
Month Mean	26.11	Grand Mean	25.68
Avg SD	2.41	Avg SD Months	2.79
SD btwn Labs	3.47	SD btwn Labs	2.23
Labs Incl	30	Labs Incl	30



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

Report #680
May 2026

Key to Instrument Codes Reported by Participants

ZZ Instruments No Longer Tracked



Containerboard Interlaboratory Testing Program
 Analysis 237
Air Resistance, 42 lb Linerboard - 42N1
 TAPPI Official Test Method T460

Report #680
May 2026

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst
2ZZDAY_AL	39.6	-1.85	1.92	39.8	-2.35 *	0.88	4	AL
36AQRX	41.1	-0.98	1.30	42.1	-0.74	1.22	4	LA
3NWPMU_AL	43.0	0.13	1.51	43.2	0.13	0.34	4	AL
4NWX2X	40.3	-1.46	2.03	40.3	-2.05 *	2.63	4	LP
6ELWFW_AL	40.9	-1.11	2.53	41.5	-1.14	0.90	2	AL
6FFP6N_AL	44.2	0.80	1.81	43.0	-0.04	1.65	4	AL
7JWBXV_AL	44.0	0.70	1.77	42.7	-0.25	1.37	4	AL
8BZULW	42.0	-0.48	1.40	43.2	0.09	0.89	4	LP
8JA7VM	45.9	1.82	4.45 H	43.9	0.57	2.04	3	XX
ADG2YN_AL	42.7	-0.07	1.74	42.6	-0.35	0.91	4	AL
BB3XGH_AL	39.5	-1.90	2.33	54.7	8.49 X	21.49	2	XX
CE2LJB	43.3	0.31	2.45	42.9	-0.13	1.71	4	LA
CRM2MA	45.7	1.67	4.56 H	45.7	1.94 *	1.53	4	GA
D3NNDL	40.6	-1.27	4.31	42.8	-0.22	1.56	4	TP
D3NNDL_AL	42.7	-0.03	2.58	42.7	-0.30	0.88	4	XX
FW8ZRF	42.1	-0.39	2.18	41.2	-1.34	3.69 H	4	XX
JJVWUB	41.9	-0.54	3.42	43.5	0.32	1.39	4	LP
JJVWUB_AL	43.3	0.32	3.19	44.1	0.72	1.45	4	AL
KNJXBF_AL	39.8	-1.73	1.61	40.2	-2.11 *	1.78	4	AL
LDDBY9	44.0	0.72	2.19	44.1	0.78	0.68	4	LP
LKY7YD_AL	43.1	0.19	2.99	43.4	0.26	0.93	4	AL
LPAJGB	42.8	0.00	2.21	43.3	0.18	0.80	4	LP
MYQM2F	41.6	-0.67	3.26	43.3	0.16	1.70	4	LP
T6KBL4	44.3	0.87	3.12	44.7	1.20	0.73	4	TP
T9H2K3_AL	46.9	2.40 *	3.07	45.3	1.64	2.04	4	AL
U2F3VX	42.4	-0.20	2.48	42.6	-0.33	0.77	4	LA
U4MKTU	43.5	0.39	1.46	43.1	0.00	1.84	4	LP
UG8YU9	44.7	1.11	4.22	43.6	0.40	1.28	4	LP
UH4F86	43.6	0.45	2.09	44.0	0.71	0.51	4	LP
UUTC93	42.3	-0.29	4.60 H	43.8	0.51	1.46	4	LP
UVNUB6_AL	43.8	0.61	2.15	45.2	1.53	0.90	4	AL
V9WXBT	44.1	0.75	2.80	44.2	0.81	1.32	4	LA
VNZRHR_AL	41.9	-0.49	1.63	42.9	-0.13	0.92	4	AL
VTF3VW	42.7	-0.05	3.37	43.3	0.15	2.06	4	XX
VYLVPR	43.0	0.15	1.66	43.9	0.62	0.92	4	LA
Y3PZR3	43.1	0.19	2.42	43.8	0.55	1.26	4	LP
Y877PW_AL	39.9	-1.67	1.43	40.4	-1.97 *	0.83	4	AL
YDCYKT	45.3	1.47	1.89	43.0	-0.05	2.06	4	GG
YGRAXW	41.8	-0.54	2.98	41.6	-1.07	0.86	4	TD



Containerboard Interlaboratory Testing Program
Analysis 237

Report #680
May 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
YP6KQN_AL	44.1	0.79	2.46	42.8	-0.18	1.53	3	AK
YUYEL4	43.6	0.46	3.06	45.2	1.54	1.40	4	LA
Z9VTLX_AL	41.7	-0.62	3.02	43.0	-0.06	1.86	4	AL

Consensus (All Labs) Results				
Month Mean		42.77	Grand Mean	43.07
Avg SD		2.72	Avg SD Months	1.49
SD btwn Labs		1.72	SD btwn Labs	1.37
Labs Incd		42	Labs Incd	41

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
Flat Crush Strength (CMT), 26 lb Corrugating Medium - CM61
 TAPPI Official Test Method T809

Report #680
May 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	
2ZZDAY	52.0	51.6	52.5	53.7	52.4	-0.36	3.6	0.9	52.8	-0.13	2.7	1.0	16	LZ
36774U	54.3 L	53.0	52.1	53.2	53.1	-0.14	1.6	0.9	51.9	-0.42	2.4	1.4	16	LD
4M27KT	56.6 L	56.6 L	56.5 L	56.6 L	56.6	0.93	0.5	0.0 L	56.5	1.10	0.5	0.1 L	16	LD
4NWY2X	54.2	54.6	58.7	53.7	55.3	0.53	2.5	2.3	55.2	0.65	2.4	2.4	14	LD
77QG4X	53.6	52.0 L	53.3	No DATA	53.0	-0.20	2.1	0.8	54.2	0.32	2.3	1.2	15	LZ
7JWBXV	51.8	48.7	50.4	52.1	50.8	-0.88	2.0	1.6	50.9	-0.78	2.4	1.8	16	LD
7QXMUR	59.3 *	57.1	58.1	58.1	58.2	1.43	2.9	0.9	57.1	1.28	3.0	1.7	16	LC
8BZULW	55.1	56.0	57.1	55.0	55.8	0.69	2.1	0.9	55.0	0.60	3.0	1.3	16	LD
CE2LJB	50.4 H	50.6	52.4	51.9	51.3	-0.71	4.4	1.0	49.7	-1.14	4.2	2.1	16	MB
D3NNDL	31.3 XL	30.6 X	31.0 X	30.5 X	30.8	-7.13 X	1.5	0.4	46.0	-2.39 *	2.0	9.1 H	16	LD
DHBBCH	53.1	52.8	54.2	54.7	53.7	0.03	2.9	0.9	53.5	0.11	2.5	1.1	16	TX
EHUEKJ	48.8	50.9	49.7	48.1	49.4	-1.32	2.6	1.2	49.4	-1.27	2.6	1.2	4	LD
F22WEL	54.5	53.9	52.7	51.8	53.2	-0.11	2.9	1.2	52.9	-0.12	3.8	1.8	16	LD
FW8ZRF	50.7	42.0 X	39.7 X	52.5	46.2	-2.31 *	2.0	6.3 H	48.2	-1.64	2.0	3.7	16	LD
FZ8CMF	58.5	58.8	58.0	58.6	58.5	1.54	1.7	0.3	57.5	1.42	2.8	1.5	16	TB
HV9WQ4	52.8	52.7	52.1	51.9	52.4	-0.38	2.3	0.5	52.6	-0.19	2.6	1.1	16	TX
JJVWUB	53.2	55.8	56.9	52.8	54.7	0.34	3.3	2.0	53.1	-0.02	3.5	1.7	16	LD
KPQFAB	59.8 *L	60.7 *L	58.7 L	62.9 X	60.5	2.17 *	1.3	1.8	59.5	2.09 *	1.1	1.9	16	XX
KY2HVC	49.5	51.5	50.4	50.0	50.3	-1.01	3.0	0.8	53.2	-0.01	1.8	2.2	16	TU
LDDBY9	56.1	55.7	53.6	53.5	54.7	0.36	2.5	1.4	53.9	0.24	2.9	1.4	16	LZ
LKY7YD	53.8	53.1	55.1	52.5 H	53.6	0.01	2.9	1.1	54.0	0.27	2.6	1.1	13	LC
LPAJGB	52.6	50.3	50.4	49.9	50.8	-0.87	1.9	1.2	51.4	-0.60	1.6	0.9	16	LD
LVWFY8	50.2	50.8 L	52.8	50.3	51.0	-0.81	2.0	1.2	51.9	-0.42	2.6	1.4	16	LD
MKARN6	51.5	54.2	55.3	57.4	54.6	0.32	2.4	2.4	51.9	-0.43	2.2	2.2	16	LD
MYQM2F	46.7 *	48.0	50.4	51.4	49.1	-1.40	1.8	2.2	48.8	-1.45	2.2	1.2	16	LZ
NMVT8X	55.8 H	54.8	54.2	54.1	54.7	0.35	3.1	0.8	53.6	0.12	3.0	1.4	8	LD
PF97A8	57.1	56.7	57.9	58.1	57.4	1.20	2.7	0.7	56.4	1.06	2.7	0.9	16	LD
R628E3	51.3 L	51.4	51.2	49.5	50.8	-0.86	2.0	0.9	51.7	-0.50	1.9	1.3	16	LD
RFH2J4	50.4	49.1	49.8	49.9	49.8	-1.19	1.9	0.5	49.0	-1.40	1.9	1.1	16	LD
RFN9UD	54.7	54.1 H	55.9	55.8	55.1	0.48	4.1	0.9	56.0	0.93	3.1	1.6	16	LC
T6KBL4	52.8	51.5	50.8	52.9	52.0	-0.49	2.9	1.0	52.4	-0.28	2.7	1.2	16	LC
T9H2K3	55.9	55.9	16.3 XH	No DATA	42.7	-3.41 X	3.6	22.8 H	53.7	0.16	2.8	10.4 H	15	LZ
UH4F86	No DATA	No DATA	No DATA	51.9 L	51.9	-0.54	1.1	0.0	51.6	-0.54	1.7	0.2 L	4	LD
UUTC93	54.2	54.0	51.2	53.2	53.1	-0.14	2.3	1.4	52.6	-0.20	2.7	1.4	16	LD
UWYWW3	57.1	53.4	57.0	55.8	55.8	0.70	3.4	1.8	55.7	0.82	2.8	1.3	16	LD



Containerboard Interlaboratory Testing Program
Analysis 240

Report #680
May 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	
VBUGU	50.2	50.3 L	50.9	50.2	50.4	-1.00	2.3	0.3	48.3	-1.64	3.5	3.7	16	TX
VLXVW4	50.6 H	50.4	54.8	52.5	52.1	-0.48	3.7	2.1	52.3	-0.28	3.0	1.5	16	EN
VNZRHR	54.1	51.6	56.9	50.8	53.4	-0.07	2.8	2.8	52.2	-0.34	2.3	2.1	16	LD
VTF3VW	56.7	61.6 *H	60.6 *	56.6 H	58.9	1.65	5.0	2.6	56.4	1.07	3.5	2.1	16	LD
VYLVPR	53.4	51.4	54.1	53.8	53.2	-0.13	2.7	1.2	58.6	1.79	3.7	6.8 H	16	LD
Y3PZR3	54.3	54.0	54.8	54.1	54.3	0.22	3.6	0.4	54.5	0.42	3.1	1.1	16	XX
YUYEL4	56.4	62.9 X	65.6 XH	60.1 *	61.3	2.40 *	3.4	4.0 H	58.5	1.74	4.0	4.1	16	TU

Consensus (All Labs) Results														
Wk Mean	53.60	53.41	54.09	53.39	Month Mean	53.59			Grand Mean	53.21				
Avg SDr	2.62	3.07	2.74	2.67	Avg SD	2.75			Avg SD	2.72				
SD btwn Labs	2.93	3.11	3.00	2.82	SD btwn Labs	3.19			SD btwn Labs	3.02				
Labs Incl	40	38	37	38	SD btwn Wks	1.80			SD btwn Wks	2.93				
Labs Excl	1	3	4	2	Labs Incl	40			Labs Incl	42				
Labs not Rcvd	1	1	1	2										

Key to Instrument Codes Reported by Participants

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 #680
May 2026

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
2ZZDAY	55.3 H	51.9	51.4	54.2 H	53.2	-0.92	3.8	1.9	53.7	-0.99	3.5	1.3	16	LZ
36774U	59.0	59.2	59.5	59.9	59.4	0.32	1.7	0.4	58.3	0.00	2.1	1.2	8	XX
4NWX2X	60.2	62.6 H	57.9	60.6	60.3	0.51	3.7	1.9	59.2	0.18	2.6	2.1	14	LD
77QG4X	57.2	56.7	56.4	NO DATA	56.8	-0.21	2.0	0.4	58.1	-0.05	2.0	1.1	15	LZ
7E2JPY	52.8 L	50.6	51.6	50.6	51.4	-1.29	1.2	1.0	52.6	-1.21	2.0	1.2	16	LD
7JWBXV	57.3	57.6	59.3	57.1	57.8	0.01	2.0	1.0	58.2	-0.04	1.9	1.0	16	LD
D3NNDL	59.8 L	60.3	59.8	60.6	60.1	0.48	2.3	0.4	61.0	0.57	2.0	1.1	16	LD
JJVVUB	47.5 X	48.7 H	48.7 *	47.7	48.1	-1.94 *	3.1	0.6	49.0	-2.00 *	2.9	0.8	16	LD
KPQFAB	70.2 XL	72.3 *	69.2 *L	70.1 *L	70.5	2.55 *	0.8	1.3	69.3	2.34 *	1.0	2.4	16	XX
LKY7YD	60.6	59.6	57.9	60.0	59.5	0.35	2.2	1.2	60.7	0.51	2.1	1.4	13	LC
LPAJGB	62.2 L	62.6	61.6	62.1	62.1	0.88	1.6	0.4	62.4	0.87	1.4	0.7	16	LD
LYBQDB	58.7	59.4	59.0	59.2	59.1	0.26	1.6	0.3	58.2	-0.02	1.9	1.0	16	LC
MKARN6	55.2	57.9	57.8	57.2	57.0	-0.16	2.4	1.3	57.7	-0.12	2.6	1.0	16	LD
MYQM2F	60.6	62.9	62.8	62.5	62.2	0.89	2.0	1.1	61.9	0.77	1.9	1.1	16	LD
T6KBL4	58.5	58.8	59.5	58.4	58.8	0.20	1.8	0.5	59.0	0.15	1.8	1.1	16	LC
UUTC93	59.2	59.2	57.2	59.1	58.7	0.17	1.5	0.9	58.6	0.06	1.8	0.9	16	LD
UWYWW3	51.6 *	51.5 H	52.7 H	51.0	51.7	-1.23	4.0	0.7	52.8	-1.17	4.5	1.9	16	LD
VNZRHR	58.7	57.8	59.3	58.3	58.5	0.15	2.3	0.6	58.8	0.10	2.6	2.1	16	LD
VTF3VW	52.5 H	46.5 *	50.2 H	47.8 H	49.2	-1.72	4.4	2.7 H	50.7	-1.63	3.9	1.7	16	XX
VYLVPR	59.1	61.0	58.7	59.4	59.6	0.36	1.7	1.0	64.9	1.41	4.3	6.3 H	16	LD
Y3PZR3	60.8	58.9	59.2	58.9	59.5	0.34	2.1	0.9	59.7	0.29	2.0	0.9	16	XX

Consensus (All Labs) Results														
Wk Mean	57.85	57.90	57.61	57.73	Month Mean	57.79			Grand Mean	58.33				
Avg SDr	2.42	2.44	2.55	2.64	Avg SD	2.49			Avg SD	2.60				
SD btwn Labs	3.04	5.70	4.67	5.34	SD btwn Labs	4.97			SD btwn Labs	4.69				
Labs Incl	19	21	21	20	SD btwn Wks	1.14			SD btwn Wks	1.93				
Labs Excl	2	0	0	0	Labs Incl	21			Labs Incl	21				
Labs not Rcvd	0	0	0	1										

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)
- 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 #680
May 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	
36774U	32.3	30.1 *	32.8	32.2	31.9	-0.30	1.9	1.2	33.0	-0.40	1.9	1.2	16	XX
4M27KT	36.4 L	36.4 L	36.4 *L	36.5 L	36.4	1.55	0.5	0.0 L	37.7	4.29 X	0.6	0.9	16	LD
7JWBXV	33.6	32.8	33.9	34.8 H	33.8	0.48	2.6	0.9	32.9	-0.50	2.4	0.9	16	LD
7QXMUR	35.1	35.3	34.1	35.5	35.0	0.96	2.0	0.6	34.3	0.94	1.9	1.4	16	XX
8BZULW	33.8	35.0	34.1	34.9	34.5	0.75	2.3	0.6	33.5	0.08	2.4	1.2	16	LD
AEPBQL	31.6	31.4	32.1	31.4	31.6	-0.39	1.8	0.3 L	31.9	-1.44	1.8	0.7	16	TH
CE2LJB	32.7	32.8	32.8 H	33.7	33.0	0.17	2.6	0.5	34.5	1.06	3.3	2.1	16	MB
CRM2MA	33.3	33.4	31.4	34.5	33.1	0.22	1.5	1.3	32.6	-0.77	1.9	0.9	16	LD
D3NNDL	31.3 L	30.6	31.0	30.5	30.8	-0.71	1.5	0.4 L	30.9	-2.45 *	1.5	0.9	16	LD
DHBBCH	34.1	34.7	34.9	34.8 H	34.6	0.83	2.4	0.4 L	33.7	0.32	2.1	3.4	16	LZ
EC6TYC	27.9 *L	26.5 X	27.3 X	28.3 *	27.5	-2.05 *	1.5	0.8	22.8	-10.40 X	1.6	5.1 H	8	XX
FW8ZRF	33.5	32.0	33.5	35.8	33.7	0.45	1.7	1.6	34.0	0.60	1.6	1.4	16	LD
FZ8CMF	33.2	33.7	32.1	33.7	33.2	0.24	1.2	0.7	33.7	0.34	2.1	1.3	16	XX
HV9WQ4	27.8 *	25.2 X	26.0 X	26.3 X	26.3	-2.53 *	2.6	1.1	26.8	-6.51 X	3.0	1.0	16	MZ
KY2HVC	34.0	35.0	34.1 L	34.2 L	34.3	0.69	1.5	0.5	33.2	-0.14	1.2	0.8	16	TU
LPAJGB	32.1	33.2	32.8	33.6 L	32.9	0.13	1.0	0.6	32.1	-1.24	1.3	0.9	16	LD
LVWY8	27.9 *H	34.0	33.6	35.6	32.8	0.08	2.3	3.4	33.6	0.23	2.2	2.0	16	LD
MKARN6	33.6	32.6	33.9	35.1	33.8	0.50	1.5	1.0	34.0	0.56	1.7	1.1	16	LD
MYQM2F	32.6	34.8	33.3	33.7	33.6	0.42	1.6	0.9	34.7	1.32	1.6	1.0	16	LD
PF97A8	34.9	36.2	35.5	35.3	35.5	1.16	1.4	0.5	34.9	1.54	1.7	0.7	16	LD
R628E3	32.8	31.3	34.0	31.0	32.3	-0.13	2.1	1.4	32.2	-1.12	1.8	1.3	16	LD
T6KBL4	31.9	33.2	31.7	32.0	32.2	-0.15	2.1	0.7	32.2	-1.14	2.2	0.9	16	LC
T9H2K3	35.5	35.8	13.4 X	NO DATA	28.2	-1.76	1.9	12.8 H	34.6	1.16	1.6	5.9 H	15	LZ
UUTC93	33.8	33.5	33.1	34.2	33.6	0.42	1.9	0.5	33.7	0.31	1.7	0.5 L	16	LD
VTF3VW	25.9 X	27.1 XH	30.0 *	28.9 *	28.0	-1.88	3.4	1.9	27.5	-5.79 X	2.9	1.9	12	XX
Y3PZR3	32.7	34.4	34.7	33.2	33.8	0.48	2.0	0.9	33.6	0.23	2.0	0.7	16	XX
YP6KQN	33.8	32.9	33.1	34.3	33.5	0.38	1.5	0.6	33.9	0.50	1.6	1.8	16	LD

Consensus (All Labs) Results														
Wk Mean	32.78	33.54	33.29	33.50	Month Mean	32.59			Grand Mean	33.38				
Avg SDr	1.87	1.74	2.02	1.80	Avg SD	1.95			Avg SD	1.93				
SD btwn Labs	2.16	1.70	1.44	2.13	SD btwn Labs	2.47			SD btwn Labs	1.02				
Labs Incl	26	24	24	25	SD btwn Wks	2.70			SD btwn Wks	1.82				
Labs Excl	1	3	3	1	Labs Incl	27			Labs Incl	23				
Labs not Rcvd	0	0	0	1										



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

Report #680
May 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 #680
May 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	
6ELFWF	11.6	11.5	12.1	11.9	11.8	0.41	0.9	0.3	11.7	0.30	0.9	0.2	8	LA
7FVBEP	11.1 L	10.8 L	10.6	10.6 L	10.7	-1.27	0.6	0.2	10.8	-1.19	0.8	0.3	16	XX
7JWBXV	11.1	11.6 L	11.2	11.4	11.3	-0.32	0.8	0.2	11.3	-0.47	0.7	0.2	14	LA
8BZULW	11.7	11.0 L	11.2	11.1	11.3	-0.43	0.8	0.3	11.1	-0.67	0.7	0.3	16	LH
CE2LJB	12.4	11.1	12.4 H	12.3	12.1	0.86	1.1	0.6	12.1	0.93	1.4	0.5	16	LA
CRM2MA	10.7	11.1	11.5	11.5 H	11.2	-0.55	1.1	0.4	11.4	-0.17	0.8	1.4 H	16	LB
DHBBCH	12.3	11.4	13.6 *	12.0	12.3	1.26	0.7	0.9 H	12.2	1.10	0.8	0.8	16	XX
HV9WQ4	10.8	10.8	10.5	10.9	10.7	-1.25	0.9	0.2	10.8	-1.25	0.9	0.7	16	TS
JJVWUB	11.9 H	12.4 H	11.7 H	11.9 H	11.9	0.65	1.7	0.3	11.7	0.28	1.8	0.4	12	LB
KPQFAB	10.6 L	10.6	10.5	11.7	10.8	-1.11	0.8	0.6	10.7	-1.43	0.9	0.8	16	XX
KY2HVC	10.4	10.2 *	10.1	10.4 *	10.3	-2.00 *	0.8	0.1	10.8	-1.16	0.9	0.5	16	XX
LVWFY8	12.0	12.1	11.2	11.9	11.8	0.41	0.9	0.4	11.5	-0.10	1.0	0.5	16	LH
MKARN6	10.5	11.2	10.4	10.8	10.7	-1.29	0.9	0.4	10.5	-1.65	0.8	0.3	16	LB
MYQM2F	12.9	11.9	13.0	11.6	12.3	1.28	0.7	0.7	12.6	1.64	0.9	0.7	16	LA
R628E3	11.3	12.0	11.8	11.5	11.7	0.18	0.9	0.3	11.5	-0.15	0.8	0.3	16	XX
RFN9UD	11.8	11.7	12.1	11.7	11.8	0.46	0.7	0.2	11.4	-0.24	0.8	0.7	16	LA
T6KBL4	11.0	11.3	11.2	11.5	11.2	-0.48	0.8	0.2	11.2	-0.62	0.7	0.3	16	LU
UH4F86	No DATA	No DATA	No DATA	11.6 L	11.6	0.05	0.4	0.0	11.3	-0.35	0.5	0.4	4	LH
UWYWW3	12.2	11.6	11.2	12.1 L	11.8	0.38	0.7	0.5	11.5	-0.02	0.6	0.4	16	LA
V9WXBT	12.8	12.4	13.4	12.8 *	12.8	2.06 *	1.0	0.4	12.5	1.48	1.2	0.5	16	LA
VBUGU	10.4	10.8	10.1	10.7	10.5	-1.65	0.8	0.3	10.8	-1.16	0.8	0.6	16	TT
VNZRHR	11.5	10.8 L	11.6	12.2	11.5	-0.02	0.8	0.6	11.7	0.19	0.8	0.5	16	LA
VTF3VW	11.1 L	11.2 L	11.8 L	11.2 L	11.3	-0.35	0.0	0.3	11.7	0.23	0.0	0.4	16	LH
VYLVPR	12.0	11.3	11.8	10.9	11.5	-0.05	0.8	0.5	13.0	2.28 *	1.5	1.2	16	LA
W2KHW2	12.9	12.2	12.5	11.6	12.3	1.24	1.0	0.5	11.8	0.40	0.9	0.5	16	LU
YP6KQN	10.8	12.7 *	11.9	11.9	11.8	0.43	0.9	0.8	12.0	0.69	0.8	0.9	16	LH
YUYEL4	12.3	11.8	12.9	11.9	12.2	1.09	0.9	0.5	12.2	1.11	1.0	0.3	16	LA

Consensus (All Labs) Results														
Wk Mean	11.54	11.44	11.63	11.54	Month Mean	11.54			Grand Mean	11.55				
Avg SDr	0.82	0.90	0.90	0.95	Avg SD	0.89			Avg SD	0.95				
SD btwn Labs	0.80	0.63	0.96	0.57	SD btwn Labs	0.63			SD btwn Labs	0.62				
Labs Incl	26	26	26	27	SD btwn Wks	0.46			SD btwn Wks	0.62				
Labs Excl	0	0	0	0	Labs Incl	27			Labs Incl	27				
Labs not Rcvd	1	1	1	0										



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

Report #680
May 2026

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)
TS	TMI Monitor/STFI Compression Tester, 17-33	TT	TMI Short Span Compression, 17-34 (MB K455)
XX	Instrument make/model not specified by lab		

End of Report