

REPORT A (SUMMARY)

ROUND: 2023-2
ISSUED BY: SMITHERS

No.	PROPERTY	METHOD	LEVEL	UNIT	CEPI-A MEAN	SD WITHIN	SD BETWEEN	NUMBER OF QL's	WARNING LIMITS	ACTION LIMITS		
1.3	Grammage	ISO 536	1	g/m ²	59.7	0.23	0.28	11	59.1	60.2	58.9	60.4
1.3	Grammage	ISO 536	2	g/m ²	99.5	0.61	0.71	12	98.0	101	97.6	101
1.3	Grammage	ISO 536	3	g/m ²	246	1.01	1.68	12	242	249	241	250
1.3	Grammage	ISO 536	4	g/m ²	598	6.05	7.05	9	584	612	580	617
2.3	Tearing res. (Elmendorf)	ISO 1974	1	mN	342	14.7	13.5	10	315	369	306	377
2.3	Tearing res. (Elmendorf)	ISO 1974	2	mN	564	21.9	21.7	10	520	607	507	620
2.3	Tearing res. (Elmendorf)	ISO 1974	3	mN	1722	67.2	121	10	1480	1964	1407	2037
2.3	Tearing res. (Elmendorf)	ISO 1974	4	mN	2087	75.7	218	10	1651	2522	1520	2653
2.8	Flat crush res. after lab fluting	ISO 7263-1	1	N	145	5.04	7.18	7	130	159	126	163
2.8	Flat crush res. after lab fluting	ISO 7263-1	2	N	291	10.8	15.3	7	260	321	251	330
2.10	Puncture res.	ISO 3036	1	J	4.75	0.100	0.495	5	3.76	5.74	3.47	6.04
2.10	Puncture res.	ISO 3036	2	J	11.5	0.122	1.09	5	9.29	13.7	8.64	14.3
2.12	Folding endurance (Schopper)	ISO 5626	1	log10(n)	2.07	0.136	0.208	6	1.65	2.48	1.52	2.61
2.12	Folding endurance (Schopper)	ISO 5626	2	log10(n)	3.22	0.105	0.294	5	2.63	3.81	2.46	3.99
2.13	Folding endurance (Köhler-Molin)	ISO 5626	1	log10(n)	-	-	-	-	-	-	-	-
2.13	Folding endurance (Köhler-Molin)	ISO 5626	2	log10(n)	-	-	-	-	-	-	-	-
2.14	Bursting strength paper	ISO 2758	1	kPa	174	9.36	10.5	10	153	195	147	201
2.14	Bursting strength paper	ISO 2758	2	kPa	445	23.0	22.2	11	401	490	388	503
2.14	Bursting strength paper	ISO 2758	3	kPa	568	25.8	19.7	10	529	608	517	620
2.14	Bursting strength paper	ISO 2758	4	kPa	934	62.4	47.2	9	840	1029	812	1057
2.15	Bursting strength board	ISO 2759	2	kPa	461	21.0	39.7	8	382	541	358	565
2.15	Bursting strength board	ISO 2759	3	kPa	578	27.0	27.4	9	523	633	507	649
2.15	Bursting strength board	ISO 2759	4	kPa	926	56.7	35.0	9	856	996	835	1017
2.15	Bursting strength board	ISO 2759	5	kPa	1139	52.3	33.2	9	1073	1206	1053	1226
2.18(a)	Tensile strength	ISO 1924-3	1	kN/m	1.79	0.049	0.079	7	1.64	1.95	1.59	2.00
2.18(a)	Tensile strength	ISO 1924-3	2	kN/m	5.82	0.148	0.249	8	5.32	6.31	5.17	6.46
2.18(a)	Tensile strength	ISO 1924-3	3	kN/m	14.7	0.525	0.550	7	13.6	15.8	13.3	16.1
2.18(b)	Tensile Strain	ISO 1924-3	1	%	3.89	0.322	0.313	7	3.26	4.51	3.08	4.70
2.18(b)	Tensile Strain	ISO 1924-3	2	%	2.20	0.125	0.291	8	1.62	2.78	1.44	2.96
2.18(b)	Tensile Strain	ISO 1924-3	3	%	2.08	0.110	0.331	6	1.41	2.74	1.22	2.94
2.18(c)	Tensile energy absorption (TEA)	ISO 1924-3	1	J/m ²	52.8	5.39	4.30	7	44.2	61.4	41.6	64.0
2.18(c)	Tensile energy absorption (TEA)	ISO 1924-3	2	J/m ²	81.7	7.60	2.93	7	75.8	87.5	74.1	89.3
2.18(c)	Tensile energy absorption (TEA)	ISO 1924-3	3	J/m ²	193	16.9	22.9	6	148	239	134	253
2.18(d)	Tensile stiffness	ISO 1924-3	1	kN/m	215	7.52	18.4	5	179	252	168	263
2.18(d)	Tensile stiffness	ISO 1924-3	2	kN/m	643	11.5	47.8	5	547	738	519	767
2.18(d)	Tensile stiffness	ISO 1924-3	3	kN/m	1424	46.6	254	6	916	1932	763	2084
3.1	Bending stiffness resonance	ISO 5629	1	mNm	0.227	0.020	0.012	5	0.202	0.251	0.195	0.259
3.1	Bending stiffness resonance	ISO 5629	2	mNm	7.54	0.340	0.756	5	6.03	9.06	5.58	9.51
3.1	Bending stiffness resonance	ISO 5629	3	mNm	19.8	0.57	0.98	5	17.8	21.7	17.2	22.3
3.1	Bending stiffness resonance	ISO 5629	4	mNm	71.1	2.07	3.29	5	64.5	77.7	62.5	79.6
4.3	Roughness Parker Print-surf	ISO 8791-4	1	µm	1.09	0.045	0.263	5	0.56	1.61	0.40	1.77
4.3	Roughness Parker Print-surf	ISO 8791-4	2	µm	3.01	0.124	0.808	6	1.40	4.63	0.91	5.11
4.3	Roughness Parker Print-surf	ISO 8791-4	3	µm	6.12	0.308	0.856	6	4.41	7.83	3.89	8.34
8.2	Tissue, Tensile str. after imm. in	ISO 12625-5	1	N/m	30.1	1.67	2.32	9	25.4	34.7	24.0	36.1
8.2	Tissue, Tensile str. after imm. in	ISO 12625-5	2	N/m	64.9	2.47	3.64	9	57.6	72.2	55.5	74.4
8.5(a)	Tissue, Tensile strength	ISO 12625-4	1	N/m	112	7.76	6.74	9	98.9	126	95	130

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8.5(a)	Tissue, Tensile strength	ISO 12625-4	2	N/m	453	21.1	14.6	9	424	482	415	491
8.5(b)	Tissue, Strain at break	ISO 12625-4	1	%	17.2	1.03	0.72	9	15.7	18.6	15.3	19.0
8.5(b)	Tissue, Strain at break	ISO 12625-4	2	%	15.2	0.65	0.56	9	14.1	16.3	13.7	16.6
8.7	Tissue, Grammage	ISO 112625-6	1	g/m ²	20.5	0.15	0.17	12	20.2	20.9	20.1	21.0
8.7	Tissue, Grammage	ISO 112625-6	2	g/m ²	53.3	0.25	0.52	10	52.3	54.4	52.0	54.7
10.3	Relative humidity	ISO 187	1	%	-0.03	-	0.76	9	-1.55	1.49	-2.01	1.94

Issued by Mr G. Collis

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for SMITHERS as a member of the
CEPI Comparative Testing Service