

REPORT A (SUMMARY)

ROUND: 2024-1
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	59.6	0.28	0.33	13	58.9	60.2	58.7	60.4
1.3	Grammage	ISO 536	2	g/m ²	99.0	0.69	0.29	14	98.5	99.6	98.3	99.8
1.3	Grammage	ISO 536	3	g/m ²	246	1.1	1.3	14	243	249	242	249
1.3	Grammage	ISO 536	4	g/m ²	596	3.8	6.8	14	583	610	579	614
2.3	Tearing res. (Elmendorf)	ISO 1974	1	mN	352	12.5	45.8	12	261	444	233	471
2.3	Tearing res. (Elmendorf)	ISO 1974	2	mN	610	18.6	30.9	12	548	672	530	690
2.3	Tearing res. (Elmendorf)	ISO 1974	3	mN	1481	75	108	13	1265	1696	1201	1761
2.3	Tearing res. (Elmendorf)	ISO 1974	4	mN	1946	105	86	12	1773	2119	1721	2170
2.8	Flat crush res. after lab fluting	ISO 7263-1	1	N	145	6.1	8.4	9	129	162	124	167
2.8	Flat crush res. after lab fluting	ISO 7263-1	2	N	297	8.0	18.0	8	261	333	250	344
2.10	Puncture res.	ISO 3036	1	J	4.35	0.089	0.571	6	3.20	5.49	2.86	5.83
2.10	Puncture res.	ISO 3036	2	J	11.1	0.15	1.52	5	8.0	14.1	7.1	15.0
2.12	Folding endurance (Schopper)	ISO 5626	1	log10(n)	1.99	0.168	0.203	6	1.58	2.39	1.46	2.52
2.12	Folding endurance (Schopper)	ISO 5626	2	log10(n)	3.24	0.098	0.224	5	2.79	3.69	2.65	3.82
2.13	Folding endurance (Köhler-Molin)	ISO 5626	1	log10(n)	2.78	-	0.244	2	2.30	3.27	2.15	3.42
2.13	Folding endurance (Köhler-Molin)	ISO 5626	2	log10(n)	3.16	-	0.067	2	3.03	3.29	2.99	3.33
2.14	Bursting strength paper	ISO 2758	1	kPa	172	10.0	19.2	11	134	211	123	222
2.14	Bursting strength paper	ISO 2758	2	kPa	403	15.9	20.2	11	363	444	351	456
2.14	Bursting strength paper	ISO 2758	3	kPa	563	25.6	20.8	11	521	604	509	617
2.14	Bursting strength paper	ISO 2758	4	kPa	925	66.8	53.2	10	819	1032	787	1064
2.15	Bursting strength board	ISO 2759	2	kPa	420	21.0	29.9	9	361	480	343	498
2.15	Bursting strength board	ISO 2759	3	kPa	572	23.5	36.7	9	499	646	477	668
2.15	Bursting strength board	ISO 2759	4	kPa	909	48.3	47.7	8	813	1004	784	1033
2.15	Bursting strength board	ISO 2759	5	kPa	1079	62	63	9	953	1205	915	1243
2.18(a)	Tensile strength	ISO 1924-3	1	kN/m	1.83	0.058	0.033	9	1.77	1.90	1.75	1.92
2.18(a)	Tensile strength	ISO 1924-3	2	kN/m	5.87	0.155	0.145	10	5.58	6.16	5.50	6.25
2.18(a)	Tensile strength	ISO 1924-3	3	kN/m	14.7	0.48	0.37	10	14.0	15.4	13.7	15.7
2.18(b)	Tensile strain	ISO 1924-3	1	%	3.76	0.329	0.268	9	3.23	4.30	3.07	4.46
2.18(b)	Tensile strain	ISO 1924-3	2	%	2.14	0.113	0.190	10	1.76	2.52	1.65	2.64
2.18(b)	Tensile strain	ISO 1924-3	3	%	2.12	0.104	0.350	9	1.42	2.82	1.21	3.03
2.18(c)	Tensile energy absorption (TEA)	ISO 1924-3	1	J/m ²	51.9	5.72	3.41	9	45.1	58.8	43.1	60.8
2.18(c)	Tensile energy absorption (TEA)	ISO 1924-3	2	J/m ²	81.7	6.91	4.68	10	72.4	91.1	69.6	93.9
2.18(c)	Tensile energy absorption (TEA)	ISO 1924-3	3	J/m ²	202	17.0	22.4	10	157	247	144	261
2.18(d)	Tensile stiffness	ISO 1924-3	1	kN/m	218	6.3	17.5	6	183	253	173	264
2.18(d)	Tensile stiffness	ISO 1924-3	2	kN/m	612	12.7	77.7	7	456	767	410	814
2.18(d)	Tensile stiffness	ISO 1924-3	3	kN/m	1410	46	259	8	893	1927	737	2083
3.1	Bending stiffness resonance	ISO 5629	1	mNm	0.265	0.0222	0.0819	5	0.101	0.428	0.052	0.477
3.1	Bending stiffness resonance	ISO 5629	2	mNm	7.87	0.260	0.783	6	6.31	9.44	5.84	9.91
3.1	Bending stiffness resonance	ISO 5629	3	mNm	30.1	0.86	6.17	6	17.7	42.4	14.0	46.1
3.1	Bending stiffness resonance	ISO 5629	4	mNm	72.7	2.13	4.44	6	63.8	81.5	61.1	84.2
4.3	Roughness Parker Print-surf	ISO 8791-4	1	µm	1.13	0.041	0.118	6	0.89	1.36	0.82	1.43

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4.3	Roughness Parker Print-surf	ISO 8791-4	2	µm	2.70	0.094	0.205	6	2.29	3.11	2.17	3.23
4.3	Roughness Parker Print-surf	ISO 8791-4	3	µm	6.48	0.225	1.180	6	4.12	8.84	3.41	9.55
8.2	Tissue, Tensile str. after imm. in	ISO 12625-5	1	N/m	29.1	1.57	2.19	8	24.8	33.5	23.4	34.8
8.2	Tissue, Tensile str. after imm. in	ISO 12625-5	2	N/m	64.4	2.10	2.98	8	58.4	70.3	56.6	72.1
8.5(a)	Tissue, Tensile strength	ISO 12625-4	1	N/m	113	9.5	5.3	8	103	124	99	127
8.5(a)	Tissue, Tensile strength	ISO 12625-4	2	N/m	551	23.3	17.4	8	517	586	506	597
8.5(b)	Tissue, Strain at break	ISO 12625-4	1	%	17.5	1.19	1.02	9	15.4	19.5	14.8	20.1
8.5(b)	Tissue, Strain at break	ISO 12625-4	2	%	14.3	0.69	0.98	9	12.4	16.3	11.8	16.9
8.7	Tissue, Grammage	ISO 112625-6	1	g/m ²	20.4	0.13	0.15	10	20.1	20.7	20.0	20.8
8.7	Tissue, Grammage	ISO 112625-6	2	g/m ²	52.5	0.23	0.52	10	51.5	53.6	51.2	53.9
10.3	Relative humidity	ISO 187	1	%	-1.21	-	1.01	10	-3.23	0.81	-3.84	1.41

Issued by Mr G. Collis

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for SMITHERS as a member of the
Cepi Comparative Testing Service