



REPORT <<< A >>> (SUMMARY)

ROUND: 2019-2
ISSUED BY: SMITHERS-PIRA

No.	PROPERTY	METHOD	LEVEL	UNIT	CEPI-A MEAN	SD WITHIN	SD REPROD	NUMBER OF QL's	WARNING LIMITS		ACTION LIMITS	
1.3	Grammage	ISO 536	1	g/m ²	60.1	0.31	0.35	15	59.4	60.8	59.2	61.0
			2		98.0	0.69	0.72	15	96.5	99.4	96.1	99.9
			3		298	2.3	1.2	15	295	300	294	301
2.3	Tearing resistance (Elmendorf)	ISO 1974	1	mN	346	18.8	36.1	15	273	418	252	439
			2		793	17.9	42.5	14	708	878	683	903
			3		1507	72	144	14	1219	1796	1132	1883
			4		2022	103	192	15	1638	2406	1523	2521
2.8	Flat crush resistance after laboratory fluting (CMT)	ISO 7263	1	N	210	6.1	17.4	10	175	245	165	255
			2		408	15.5	36.5	9	335	481	313	503
2.10	Puncture resistance	ISO 3036	1	J	4.13	0.175	0.664	8	2.80	5.46	2.41	5.86
			2		10.6	0.25	0.83	7	9.0	12.3	8.5	12.8
2.12	Folding endurance (Schopper)	ISO 5626	1	log ₁₀ (n D.F.)	2.10	0.155	0.205	9	1.69	2.51	1.56	2.63
			2		2.82	0.129	0.200	8	2.42	3.22	2.30	3.34
2.14	Bursting strength paper	ISO 2758	1	kPa	186	12.9	12.3	12	161	211	154	218
			2		330	20.2	17.9	12	294	366	283	376
			3		548	15.9	42.9	13	462	634	437	660
			4		660	31.6	43.2	13	574	746	548	772
2.15	Bursting strength board	ISO 2759	1	kPa	373	19.2	41.1	11	291	455	266	480
			2		579	18.6	46.4	11	486	672	458	699
			3		685	35.2	47.4	11	590	780	562	808
			4		1154	60	75	11	1005	1303	960	1348
			5									
2.18(a)	Tensile strength	ISO 1924-3	1	kN/m	1.92	0.111	0.033	10	1.85	1.98	1.83	2.00
			2		5.58	0.443	0.214	11	5.15	6.01	5.03	6.14
			3		14.8	0.46	0.33	11	14.2	15.5	14.0	15.7
2.18(b)	Tensile stretch	ISO 1924-3	1	%	4.15	0.733	0.227	11	3.69	4.60	3.56	4.74
			2		7.91	0.669	0.560	11	6.79	9.03	6.46	9.37
			3		2.18	0.104	0.404	11	1.37	2.99	1.13	3.23
2.18(c)	Tensile energy absorption (TEA)	ISO 1924-3	1	J/m ²	59.7	10.39	3.11	10	53.5	66.0	51.7	67.8
			2		283	37.9	18.1	10	247	319	236	330
			3		207	16.7	46.5	11	114	300	86	327
2.18(d)	Tensile stiffness	ISO 1924-3	1	kN/m	215	14.8	16.1	9	183	247	173	257
			2		365	12.2	36.2	9	293	438	271	460



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									1032	1912	900	2045
			3		1472	48	220	9				
3.1	Bending stiffness resonance method	ISO 5629	1 2 3 4	mNm	0.235 7.26 53.2 71.5	0.0168 0.245 2.48 2.05	0.0173 0.262 2.93 2.79	7 7 6 7	0.201 6.73 47.4 65.9	0.270 7.78 59.1 77.1	0.190 6.58 45.6 64.3	0.280 7.94 60.9 78.8
4.3	Roughness Parker Print-surf	ISO 8791-4	1 2 3	µm	0.990 2.71 4.05	0.0392 0.091 0.104	0.0836 0.331 0.184	7 7 7	0.823 2.05 3.68	1.157 3.38 4.42	0.773 1.85 3.57	1.208 3.57 4.53
8.2	Tissue, Tensile strength after immersion in water	ISO 12625-5	1 2	N/m	34.6 85.5	2.07 5.41	2.81 4.51	9 9	29.0 76.5	40.2 94.6	27.3 73.8	41.9 97.3
8.5(a)	Tissue, Tensile strength	ISO 12625-4	1 2	N/m	117 701	11.7 27.0	3.8 26.6	9 8	110 648	125 754	107 632	127 770
8.5(b)	Tissue, Stretch at break	ISO 12625-4	1 2	%	17.2 15.9	1.30 0.56	0.87 1.15	9 8	15.5 13.6	18.9 18.2	14.9 12.9	19.4 18.9
10.3	Relative humidity	ISO 187	1	%	0.27	0	1.12	10	-1.97	2.5	-2.64	3.17

Signed by Mr. G. Collis
for SMITHERS-PIRA as a member of the
CEPI Comparative Testing Service

Date: 22-10-2019