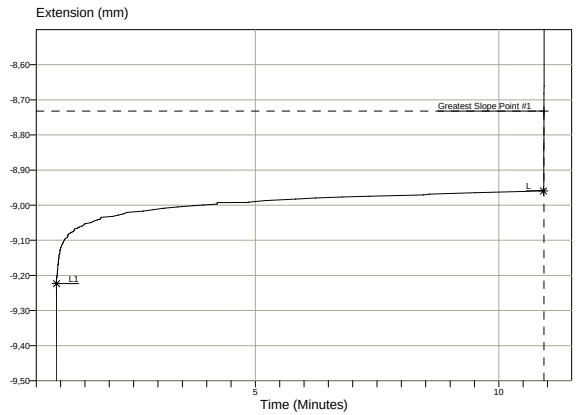
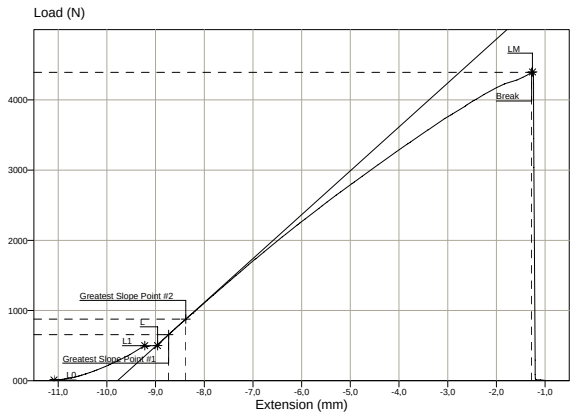
Iberográfica Capa Rota - Portugal	Brand A 4 Ply Construction	**Elongation & Tensile**	Doc. PROC- LAB - 009 Date: 02 - 02 -2012 Page 1 of 1 Rev. 0

Item #	Brand/ /Model	Job #	L0	L1	L	LM	L-L1 Yield	E1‰	L-L0 _Mounting_	E%	LM-L0 __Tensile__	EM%	Young's Modulus	Load@ LM	TT Time
			mm	mm	mm	mm	mm	‰	mm	%	mm	%	MPa	kN	s
1	A/I	59238	321,09	323,00	323,26	332,32	0,26	0,81	2,18	0,68	11,23	3,50	2.032	4,82	613,5
2	A/I	59238	320,06	321,82	322,09	330,73	0,26	0,81	2,03	0,63	10,68	3,34	2.035	4,68	612,8
3	A/I	59238	320,08	321,94	322,21	329,91	0,26	0,82	2,13	0,66	9,83	3,07	2.050	4,40	611,7
4	A/I	64090	320,26	322,77	323,06	333,75	0,29	0,89	2,80	0,87	13,49	4,21	1.593	4,60	75,9
5	A/I	64090	320,02	322,59	322,91	333,38	0,33	1,01	2,89	0,90	13,36	4,17	1.576	4,49	75,8
6	A/II	58015	320,16	323,20	323,62	333,97	0,43	1,32	3,46	1,08	13,81	4,31	1.511	3,31	616,0
7	A/II	58015	320,33	323,09	323,57	334,27	0,48	1,48	3,25	1,01	13,95	4,35	1.494	3,38	616,2
8	A/II	63106	320,13	323,02	323,44	331,64	0,42	1,31	3,31	1,03	11,51	3,59	1.603	3,08	613,2
9	A/II	63106	320,08	322,72	323,12	332,09	0,40	1,25	3,04	0,95	12,00	3,75	1.600	3,19	613,9
10	A/II	63106	320,42	323,02	323,46	330,58	0,45	1,38	3,05	0,95	10,16	3,17	1.611	2,84	611,6
11	A/III	55459	320,07	322,46	322,75	332,25	0,29	0,90	2,67	0,84	12,18	3,80	1.939	4,32	614,3
12	A/III	55459	320,25	322,55	322,82	332,01	0,27	0,84	2,57	0,80	11,76	3,67	1.973	4,21	613,9
13	A/III	55459	320,25	322,65	322,97	332,31	0,32	0,99	2,72	0,85	12,05	3,76	1.947	4,22	614,2
14	A/III	50938	320,03	322,23	322,58	332,24	0,35	1,07	2,54	0,79	12,21	3,81	1.673	3,62	614,4





Test standard: ISO 12636 4.2 (L0 to L) (*)
4.3 (L to break)
Tester: Lloyd LR 10K Plus
Grips Distance: 320 mm
Sample Dimensions: 50 x 390 mm
(*) - Bench marks not used.
An alternate 1' hold-time short test is also used.
Results may not be comparable with those strictly conducted according to ISO 12636.
Graphs: Item 3

Legend
Extension (mm)
L0: @ 10 N L1: @ 500 N
L : after 10' hold @ 500 N LM: @ break

~"Yield during Print"
L-L1: ΔL after 10' @ 500N (mm)
E1 ‰ = $[((L-L_1)/L_1)*1000]$ ‰
Default Graph Window Extension: 1 mm

~"Mounting" elongation
L-L0: ΔL after tensioning-&-seating (mm)
E % = $[((L-L_0)/L_0)*100]$ %
According to ISO 12636: E < 1,5 %

Elongation @ LoadM
LM-L0: DL @ Maximum Load (break) (mm)
EM % = $[((L_M-L_0)/L_0)*100]$ %

Modulus: stress/strain gradient @ greatest slope
Young's Modulus: (MPa)
Load @ LM: Max. Load (kN)
TT: test Time (s)