

Item #	Brand /Model	Sample # / Job #	Thickness					Indentation				Comp. Loss %	Gauge Loss @				Hysteresis		Elastic Energy EENmm	Damping Capacity (DC)%	Test Time s			
			D0	D01	D04	D4k/3	D5k/3	D1	D4	D5	I1		I5	Ip1	Ip5	1 <sup>st</sup> cycle	60kPa	1060kPa				Wk/3	Energy HENmm	
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
1	B / IV	B1/201206	1,96	1,93	1,92	1,87	1,87	1,81	1,81	1,81	143	111	7,3	5,8	22,1	30	88,9	34	3	7,3	0,15	5,2	2,9	66,9
2	B / IV	B2/201206	1,97	1,94	1,93	1,87	1,88	1,82	1,82	1,82	153	115	7,8	5,9	25,1	34	80,2	43	4	7,3	0,39	5,5	7,1	69,0
3	B / IV	B3/201206	1,98	1,94	1,94	1,88	1,89	1,83	1,82	1,82	149	112	7,5	5,8	24,8	36	86,8	42	5	6,4	0,39	5,4	7,3	67,2
4	B / I	B4/201206	2,00	1,97	1,97	1,90	1,91	1,81	1,81	1,81	190	163	9,5	8,3	13,9	30	89,6	33	7	10,3	0,65	8,3	7,8	93,6
5	B / I	B5/201206	1,99	1,96	1,96	1,89	1,90	1,80	1,80	1,80	191	160	9,6	8,2	16,0	29	79,6	37	6	15,0	0,65	8,3	7,8	93,6
6	B / I	B6/201206	1,99	1,96	1,96	1,91	1,92	1,84	1,83	1,83	150	122	7,5	6,2	18,3	25	75,0	33	6	9,2	0,41	6,5	6,3	73,2
7	B / II	B7/201206	1,99	1,96	1,95	1,89	1,90	1,81	1,80	1,80	179	151	9,0	7,7	15,9	28	83,2	34	5	8,9	0,54	7,9	6,8	88,1
8	B / II	B8/201206	1,99	1,97	1,96	1,89	1,90	1,80	1,80	1,80	189	164	9,5	8,4	13,5	27	81,0	33	7	10,6	0,60	8,5	7,0	94,7
9	B / II	B9/201206	2,02	1,99	1,98	1,90	1,91	1,81	1,80	1,80	216	182	10,7	9,2	15,7	32	81,8	40	6	11,8	0,59	9,1	6,5	105,0

**LEGEND**

**Test Details**

Standard: ISO 12636 section 4.5  
 Equipment: Lloyd LR 10K Plus  
 Speed: 1 mm/min  
 Test Time: (D5-D0) s

**Thickness**

D0; D01; D04: @ 60kPa  
 D4k/3; D5k/3: @ 393kPa  
 D1; D4; D5: @ 1060kPa  
 Default Time W : 20s

**Indentation (@ 1060kPa)**

I1 = (D0 - D1) mm  
 I5 = (D04 - D5) mm  
 $Ip1 = \frac{(D0 - D1)}{D0} * 100\%$   
 $Ip5 = \frac{(D04 - D5)}{D04} * 100\%$   
 Time Window: 23 s / 24 s

**Compressive Loss**

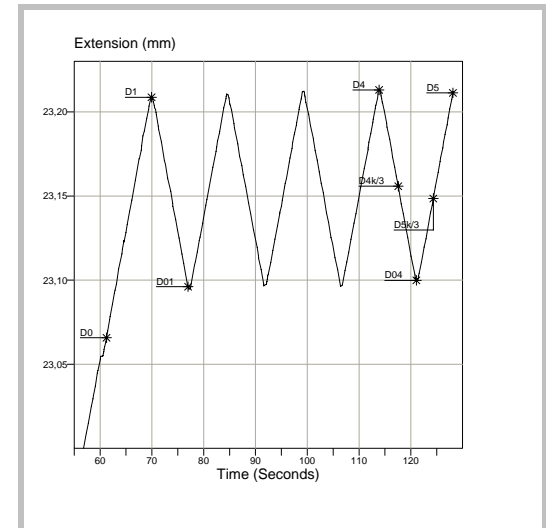
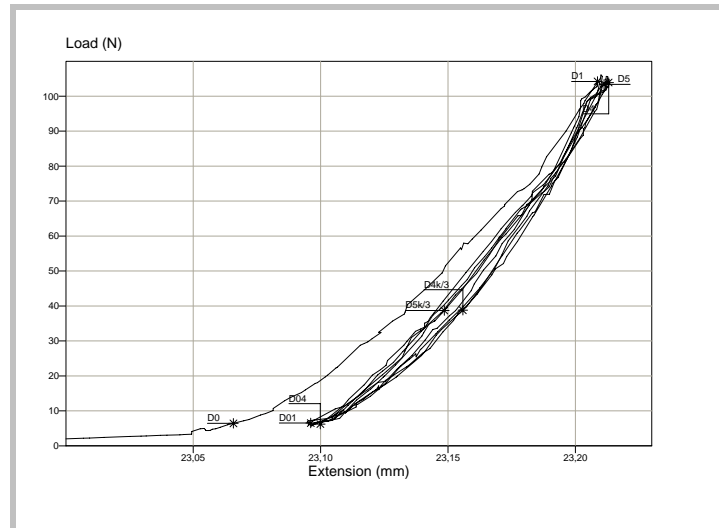
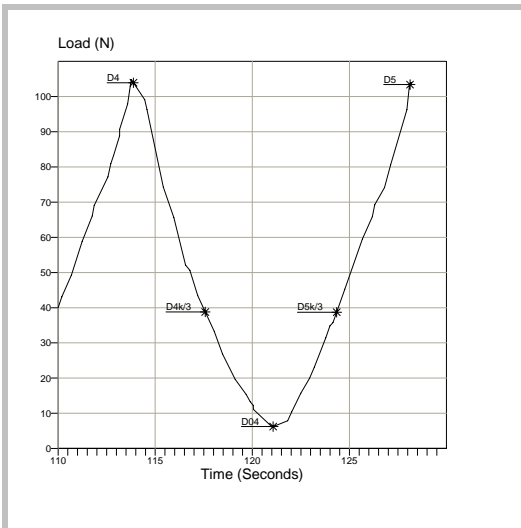
Indentation reduction from the 1st to the 5th compression cycles.  
 $CL = \frac{(I1 - I5)}{I1} * 100\%$   
 Default Extension W : 0,23 mm

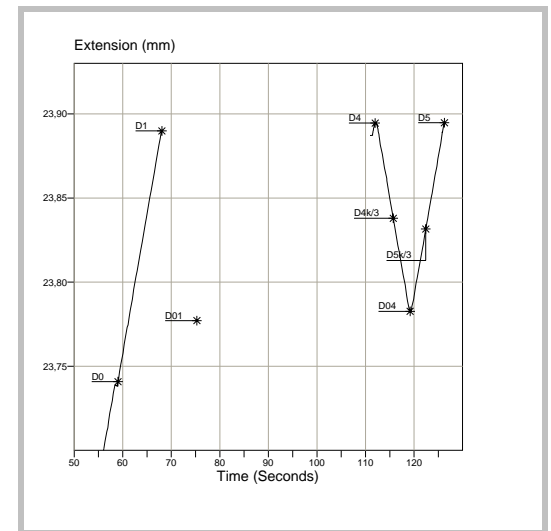
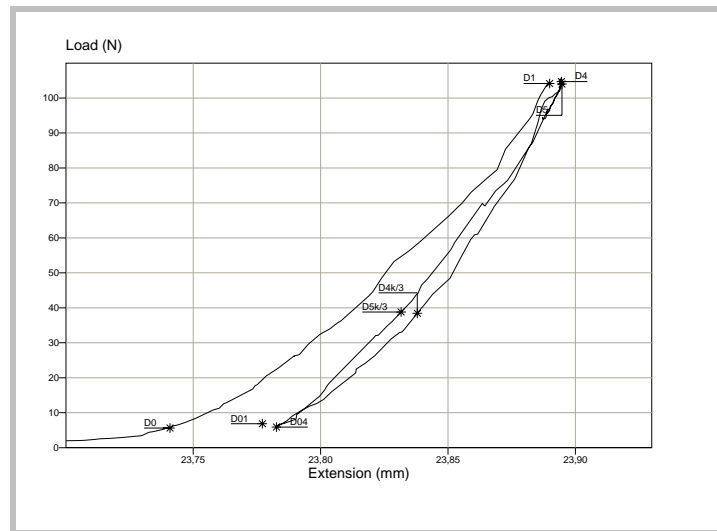
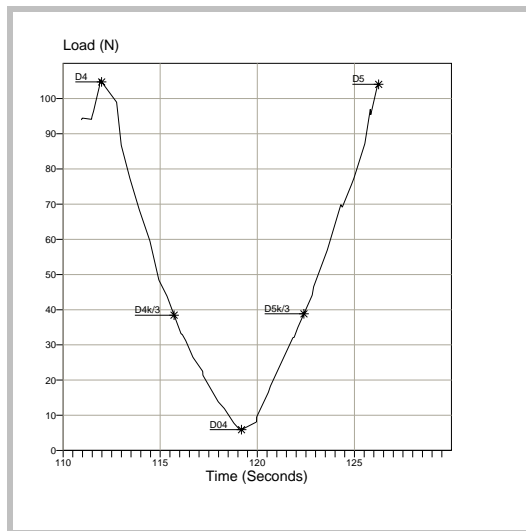
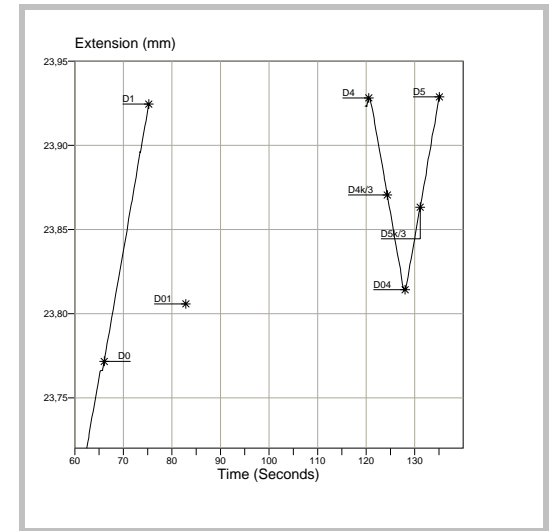
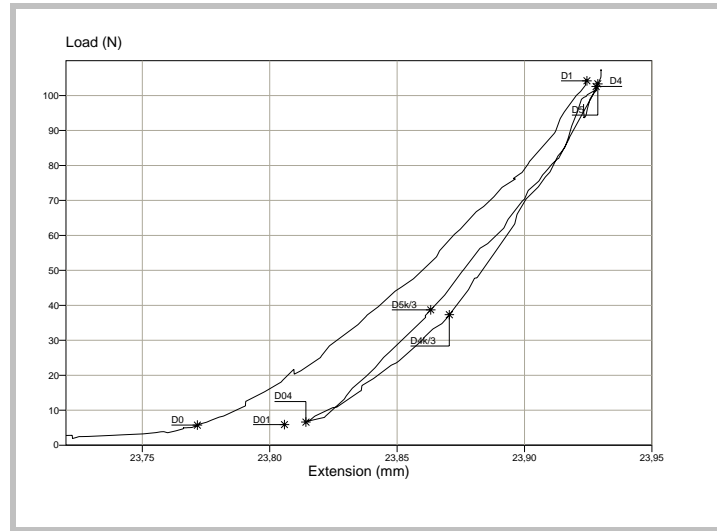
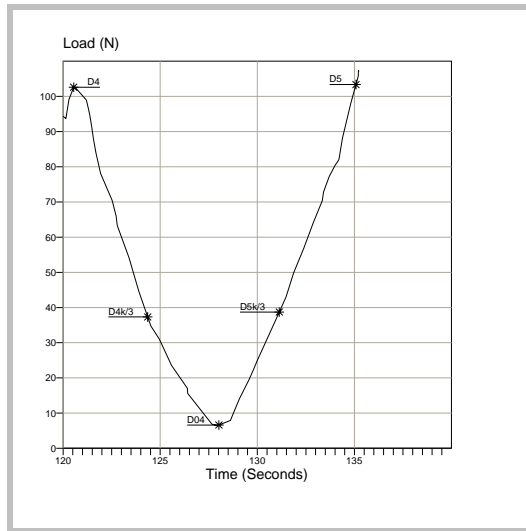
**Gauge Loss @**

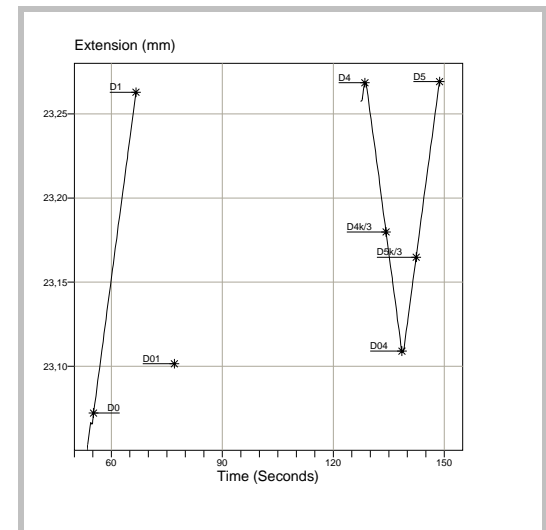
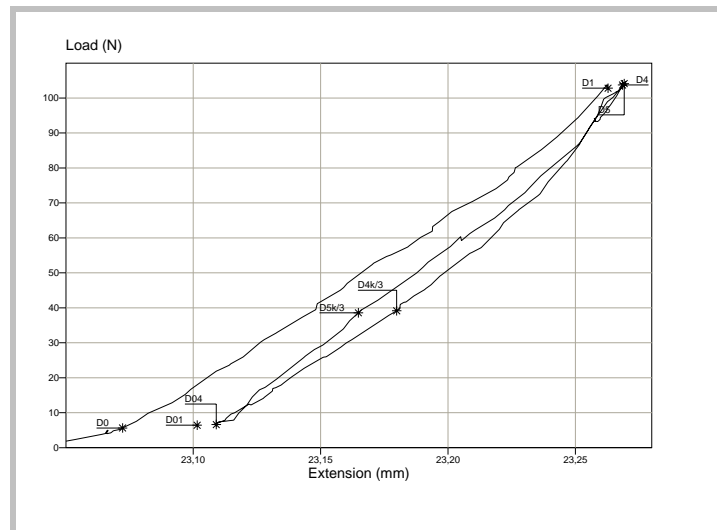
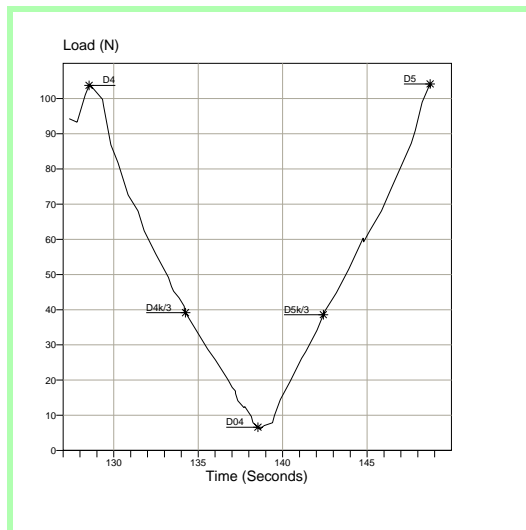
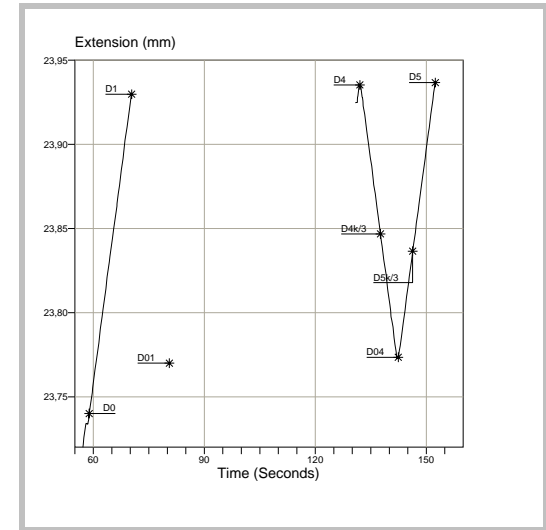
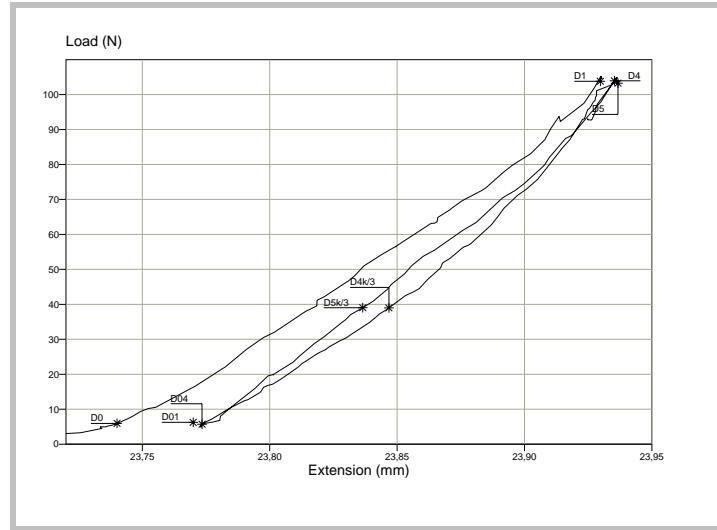
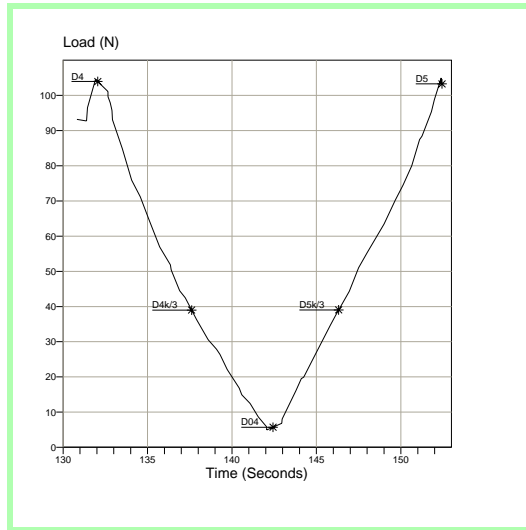
60kPa: 1<sup>st</sup> Cycle: (D0 - D01) µm  
 1<sup>st</sup> %: 1stCycle/Full Test %  
 $[(D0 - D01)/(D0 - D04)] * 100\%$   
 Full Test: (D0 - D04) µm  
 1060kPa: (D1 - D5) µm

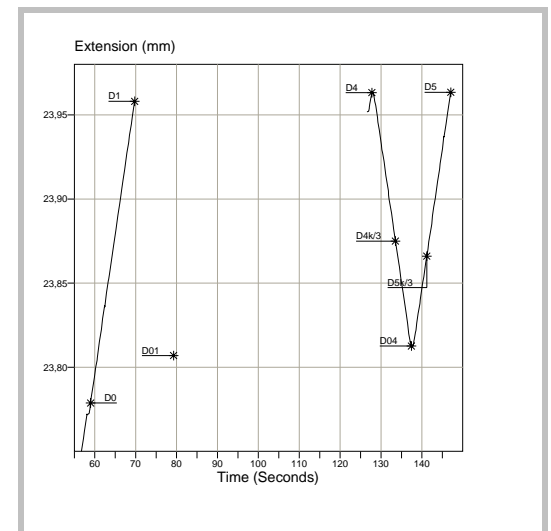
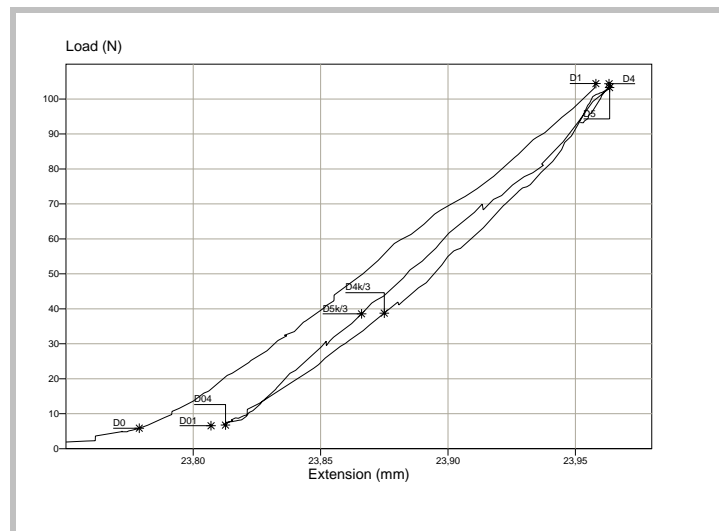
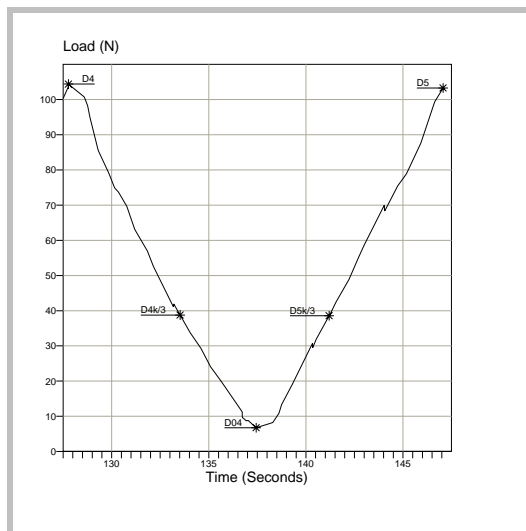
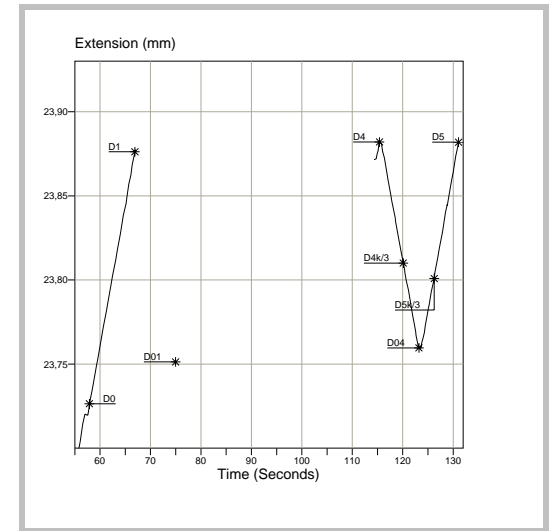
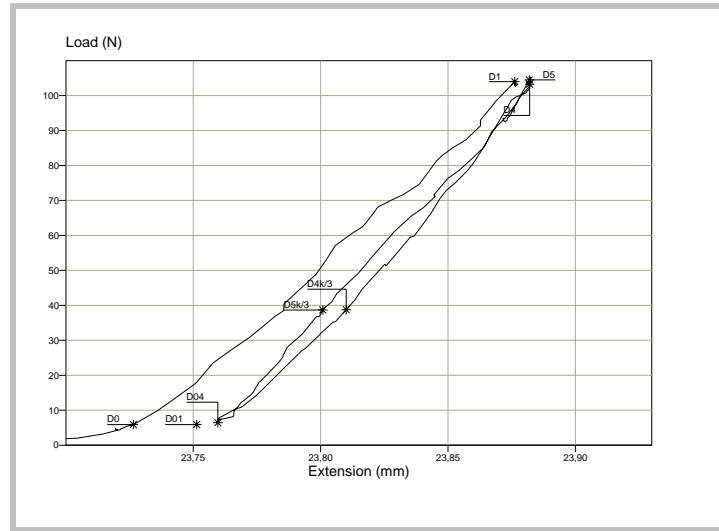
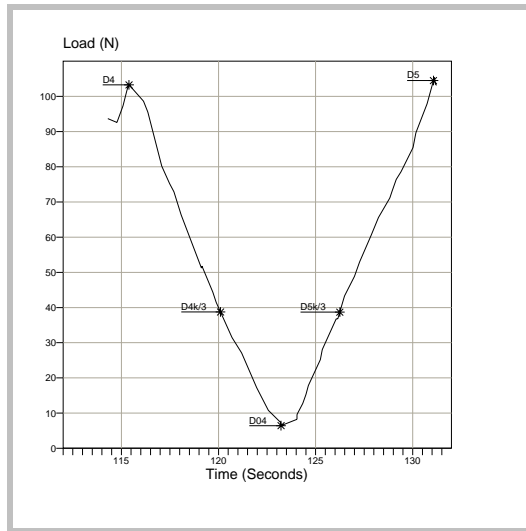
**Hysteresis**

Values valid for a specific stress cycle  
 W(window):Gauge variation due to stress history  
 Wk/3: Gauge variation@393kPa (D5k/3-D4k/3) µm  
 HE: Heat generated in one cycle (D5-D4) Nmm  
 EE: Elastic deformation energy (D5-D04) Nmm  
 DC: Damping Capacity  $[(D5-D4)/(D5-D04)] * 100\%$











Iberográfica

Capa Rota - Portugal

Brand B

Compressibility  
Indentation

Doc. PROC - LAB - 015A

Data: 20 - 06 - 2012

Folha. 5 de 5 Rev. 0

