



Iberográfica

Capa Rota - Portugal

Brand E

Compressibility Indentation

Doc. PROC - LAB - 015A

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Folha. 1 de 1 Rev. 0

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 st cycle	60kPa				1060kPa	Wk/3	Energy HENmm	
1	E/IX	P1/025203	1,94	1,91	1,89	1,84	1,85	1,79	1,79	1,79	148	107	7,6	5,7	27,6	38	76,3	49	8	11,8	0,72	5,6	13,0	64,9
2	E/IX	P2/027203	1,94	1,90	1,89	1,84	1,86	1,80	1,79	1,79	142	102	7,3	5,4	28,5	40	86,9	45	5	13,0	0,69	5,4	12,8	60,9
3	E/IX	P3/025909	1,98	1,94	1,93	1,88	1,89	1,84	1,83	1,83	143	102	7,2	5,3	28,4	44	90,1	49	8	10,0	0,63	5,2	12,1	61,4
4	E/IX	P4/025907	1,96	1,92	1,92	1,86	1,87	1,82	1,81	1,81	147	106	7,5	5,5	28,4	42	89,6	47	5	11,0	0,67	5,3	12,7	63,1

LEGEND

Test Details

Standard: ISO 12636 section 4.5
 Equipment: Lloyd LR 10K Plus
 Speed: 1 mm/min
 Test Time: (D5-D0) s
 Default Time W : 20"

Thickness

D0; D01; D04: @ 60kPa
 D4k/3; D5k/3: @ 393kPa
 D1; D4; D5: @ 1060kPa

Indentation (@ 1060kPa)

I1 = (D0 - D1) mm
 I5 = (D04 - D5) mm
 $Ip1 = \frac{(D0 - D1)}{D0} * 100\%$
 $Ip5 = \frac{(D04 - D5)}{D04} * 100\%$

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: 1st Cycle: (D0 - D01) μm
 1st cycle: 1stCycle/Full Test %
 $\frac{((D0 - D01)/(D0 - D04)) * 100\%}{Full Test: (D0 - D04) μm}$
 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)
 HE: Heat generated in one cycle (D5-D4) Nmm
 EE: Elastic deformation energy (D5-D04) Nmm
 DC: Damping Capacity $\frac{(D5-D4)}{(D5-D04)} * 100\%$

