

## Material data sheets

## Elast-O-Lion® 985



Material data sheet	Compound number	754	Revision: 4
	Polymer type:	HNBR	02/03/2009

**General description:** Elast-O-Lion® 985 is a hydrogenated acrylonitrile/butadiene-based synthetic rubber with nominally 19% ACN, reinforced with carbon black and peroxide cured. It is specially compounded for low temperature capability combined with good rapid gas decompression resistance.

**General properties:** Elast-O-Lion 985 has similar oil/fuel resistance to low nitrile (NBR) elastomers, combined with superior mechanical properties, improved chemical resistance, better weatherability, better thermal capability and outstanding abrasion resistance.

**Temperature capability:** -55°C to +150°C (-67°F to +302°F).

## TYPICAL PROPERTIES

Property	Unit	Value
<b>Hardness</b>	IRHD	87
<b>Tensile strength (TS)</b>	MPa (psi)	19 (2756)
<b>Modulus @ 50% elongation</b>	MPa (psi)	8 (1160)
<b>Modulus @ 100% elongation</b>	MPa (psi)	15.1 (2190)
<b>Elongation at break (E @ B)</b>	%	130
<b>Low temperature torsion modulus, T<sub>70</sub></b>	°C (°F)	-40 (-40)
<b>Compression set: 24 hours @ 150°C (302°F)</b>	%	13
<b>Compression set: 70 hours @ 150°C (302°F)</b>	%	28
<b>Tear resistance</b>	kN/m	30
<b>Air ageing: 70 hours @ 150°C (302°F)</b>		
Change in hardness	IRHD	+3
Change in TS	%	+1
Change in E @ B	%	-11
<b>Fluid immersion testing: Oil No 1 (ASTM No 1), 70 hours @ 150°C (302°F)</b>		
Change in hardness	IRHD	-1
Change in TS	%	-5
Change in E @ B	%	-19
Change in volume	%	+1
<b>Fluid immersion testing: Oil No 3 (IRM 903), 70 hours @ 150°C (302°F)</b>		
Change in hardness	IRHD	-24
Change in TS	%	+7
Change in E @ B	%	-12
Change in volume	%	+31
<b>Fluid immersion testing: Methanol, 70 hours @ 40°C (104°F)</b>		
Change in hardness	IRHD	-10
Change in TS	%	-20
Change in E @ B	%	-16
Change in volume	%	+8

All tests carried out in accordance with the relevant BS/BS ISO methods (see table on page 23).