

DESCRIPTION

Trackelast SCPM is a high quality thermoplastic elastomer based material with good insulation properties. It is ideally suited for use as a conformable membrane beneath concrete and ballast. It comes as a standard roll with a width of 1.20m and 10m long.

APPLICATION

This product was specifically developed to form an electrical resistant barrier between rail track systems and the surrounding environment. It is therefore called a Stray Current Protection Mat.

It meets the requirements at 20kV of BS EN 60243-1:1998 and DIN VDE 0303-21:1999.

TYPICAL PHYSICAL PROPERTIES

Test	Method	Conditions	Data	Units
Hardness	ISO 48		89	°IRHD
Density	ISO 2781		1.28	g/cm ³
Tensile Strength	ISO 37	Longitudinal	4.79	MPa
"	ISO 37	Transverse	3.85	MPa
Elongation at Break	ISO 37		550	%
Abrasion Resistance	Taber	3000 cycles, 1000g, H22 wheels	0.8	g
"	Taber	3000 cycles, 1000g, H22 wheels	0.22	mm
Electrical Resistance	BS 903 pt. C2	100v	3 x 10 ¹¹	Ω.cm
"	BS 903 pt. C2	500v	4.5 x 10 ¹¹	Ω.cm
Tear Resistance	ISO34	150 x 25mm, 60mm slit	15-18	N/mm
Punch / Shear		10.4Mpa on 6.4mm dia. punch	No Effect	
Length			10	m
Width			1.20	m

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TYPICAL PHYSICAL PROPERTIES

Test	Method	Conditions	Data	Units
Oil Resistance	ISO 1817	IRM No3 Test Oil		
3 Days	Before	After	Change	
Hardness	87°	86°	-1°	
Volume	2.97 g/cm ³	3.22 g/cm ³	+8.42%	
7 Days				
Hardness	87°	84°	-3°	
Volume	2.97 g/cm ³	3.33 g/cm ³	+12.12%	

Test	Method	Conditions	Data	Units
Acid / Alkali Resistance (1 week Test Period)				
Hydrochloric Acid (HCL) 1Mole Concentration				
Hardness	ISO 48		-1	°IRHD
Volume Change			+1	%
Tensile Strength (L)	ISO 37 Method A		No Change	MPa
Tensile Strength (T)	ISO 37 Method A		No Change	MPa
Elongation (L)	ISO 37 Method A		122 (-38)	%
Elongation (T)	ISO 37 Method A		142 (-25)	%

Test	Method	Conditions	Data	Units
Acid / Alkali Resistance (1 week Test Period)				
Sodium Hydroxide (NaOH) 1 Mole Concentration				
Hardness	ISO 48		-1.5	°IRHD
Volume Change			+1	%
Tensile Strength (L)	ISO 37 Method A		No Change	MPa
Tensile Strength (T)	ISO 37 Method A		No Change	MPa
Elongation (L)	ISO 37 Method A		119 (-41)	%
Elongation (T)	ISO 37 Method A		158 (-9)	%

Test	Method	Conditions	Data	Units
Water Absorption				
169 Hours at Room Temperature				
Hardness	ISO 48		No Change	°IRHD
Amount of Water Absorbed			0.005	g/cm ³
Tensile Strength	ISO 37 Method A		No Change	MPa
Elongation	ISO 37 Method A		No Change	%

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