

megolon S530

Flexible Sheathing Grade Compound

DESCRIPTION

MEGOLON™ S530 is a thermoplastic, halogen free, fire retardant sheathing compound possessing very good flexibility and a low Young's Modulus. It has been specifically developed for telecommunication cable applications and exhibits a high oxygen index and enhanced fire test performance.

TECHNICAL PROPERTIES

Primary Properties

Primary Properties	Unit	Nominal Value	Test Method
Tensile strength	MPa	11.5	IEC 60811-1-1
Elongation at break	%	180	IEC 60811-1-1
Oxygen Index	%	40	ISO 4589-2
Density	g/cc	1.58	ASTM D-792
Melt Flow Rate (21.6 kg, 150°C)	g/10 mins.	1.5	ISO 1133

Mechanical Properties

Tear strength	N/mm	5	BS 6469:99.1
Tensile strength after 7 days at 100°C	MPa	14.5	IEC 60811-1-2
Variation	%	+26	
Elongation at break after 7 days at 100°C	%	130	IEC 60811-1-2
Variation	%	-28	

Thermomechanical Properties

Hot pressure at 80°C	%	33	IEC 60811-3-1
Hot deformation at 90°C	%	5	BS 6469:99.1
Cold elongation at -25°C	%	40	IEC 60811-1-4
Cold impact at -25°C	%	PASS	IEC 60811-1-4

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Fire and Smoke Test Properties

	Unit	Nominal Value	Test Method
Flammability temperature index	°C	300	ISO 4589-3
Halogen acid gas evolution	%	ZERO	IEC 60754-1
Corrosivity of gases			IEC 60754-2
pH		4.5	
Conductivity	µS/cm	42	
Smoke density – Flaming mode	Ds max	48	ASTM E-662
Time to maximum	minutes	11	
Smoke density – Non-flaming mode	Ds max	350	ASTM E-662
Time to maximum	minutes	12	
Toxicity index		1.6	NES 713

Oil Resistance Properties

Medium	Temperature	Duration	Tensile Strength (MPa)	Variation (%)	Elongation at Break (%)	Variation (%)	Volume Swell (%)
IRM 902	23°C	7 days	11.5	0	140	-22	0
IRM 902	70°C	4 hours	11	-5	171	-5	+1
SAE 20	70°C	4 hours	8.6	-25	207	+15	n/a
IRM 903	23°C	7 days	5.2	-55	171	-5	+16

Electrical Properties

	Unit	Nominal Value	Test Method
Dielectric constant at 50Hz		3.8	ASTM D-150
Dissipation factor at 50Hz		0.014	ASTM D-150
Insulation resistance at 20°C			BS 6469:99.2
Initial value	ohm.cm	6 x 10 ¹³	
After 12 hours immersion in water	ohm.cm	1 x 10 ¹³	

Other Properties

	Unit	Nominal Value	Test Method
Hardness	Shore D	45	ASTM D-2240
Ozone resistance		PASS	ASTM D-470
Mooney viscosity (1+4 mins, 140°C)		50	ASTM D-1646

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