

TECHNICAL DATA SHEET

MEGOLON® S500

MEGOLON® S500 is a thermoplastic, halogen free, fire retardant cable sheathing compound for general purpose applications. It exhibits good processing characteristics - using a low compression, MEG type screw, processing speeds similar to those of PVC can be achieved. It can also be processed on a simple PVC screw at lower speeds.

APPLICATIONS

- UK: BS EN 50290-2-27
- Germany: DIN VDE 0207, part 24, type HM2
- France: Norme Française NF C 32-323

TECHNICAL PROPERTIES

Primary Properties	Unit	Nominal Value	Test Method
Tensile Strength	Mpa	11	IEC 60811-501
Elongation at break	%	180	IEC 60811-501
Oxygen Index	%	35	ISO 4589-2
Density	g/cc	1.46	ASTM D-792
Melt Flow Rate (21.6 kg, 150°C)	g/10 mins	6	ISO 1133
Mechanical Properties			
Tear strength	N/mm	6.5	BS 6469:99.1
Tensile strength after 7 days at 100°C	Mpa	12.5	IEC 60811-401
Variation	%	+12	
Elongation at break after 7 days at 100°C	%	148	IEC 60811-401
Variation	%	-18	
Thermomechanical Properties			
Hot pressure at 80°C	%	25	IEC 60811-508
Hot deformation at 90°C	%	5	BS 6469:99.1
Cold elongation at -25°C	%	96	IEC 60811-505
Cold impact at -25°C	%	PASS	IEC 60811-506
Brittleness temperature	°C	-29	ASTM D-746
Fire and Smoke Test Properties			
Flammability temperature index	°C	255	ISO 4589-3
Halogen acid gas evolution	%	ZERO	IEC 60754-1
Corrosivity of gases			IEC 60754-2
pH		6.3	
Conductivity	µS/mm	13	
Smoke density – Flaming mode	Ds max	57	ASTM E-662
Time to maximum	minutes	7	
Smoke density – Non-flaming mode	Ds max	278	ASTM E-662
Time to maximum	minutes	12	
Toxicity index		1.5	DEF STAN 02-713

Oil Resistance Properties

Medium	Temperature	Duration	Tensile Strength (Mpa)	Variation (%)	Elongation at Break (%)	Variation (%)	Volume Swell (%)
IRM 902	23°C	7 days	10.5	-5	170	-6	+4
IRM 902	70°C	4 hours	10	-9	200	+11	+1
SAE 20	70°C	4 hours	8.5	-26	210	+17	n/a
IRM 902	23°C	7 days	9.5	-14	160	-11	+20

Electrical Properties

	Unit	Nominal Value	Test Method
Dielectric constant at 50Hz		4.3	ASTM D-150
Dissipation factor at 50Hz		0.015	ASTM D-150
Insulation resistance at 20°C			BS 6469:99.2
Initial value	ohm.cm	5×10^{14}	
After 12 hours immersion in water	ohm.cm	2×10^{14}	
Dielectric Strength	kV/mm	55	

Other Properties

Mooney viscosity (1+4 mins, 140°C)		37	ASTM D-1646
Hardness	Shore D	54	ASTM D-2240
Ozone resistance		PASS	ASTM D-470

Customer shall not copy, reverse engineer, analyze or have analyzed AlphaGary's compounds or allow others to do so.

Although AlphaGary believes these data are accurate as of the date hereof, they are provided for informational purposes only. It cannot be assumed that these data cover all uses, applications or conditions in connection with this material. Accordingly, AlphaGary makes no warranty, expressed or implied that the product conforms to these data. Each customer or user of AlphaGary's materials is solely responsible for determining the suitability of the material(s) selected for the intended application. Each customer or user must conduct its own studies and gain all necessary approvals and certifications as required for the intended finished product.