

## TECHNICAL DATA SHEET

### MEGOLON® S540

MEGOLON® S540 is a thermoplastic, halogen free cable sheathing compound which exhibits an excellent level of fire retardancy. This product is specifically aimed at designs of cables requiring a good degree of flexibility and the ability to meet the more stringent fire test specifications.

#### APPLICATIONS

- CENELEC: EN 50290-2-27
- UK: BS 7655:6.1 types LTS 1 and LTS 3
- Germany: DIN VDE 0207, part 24, type HM2

#### TECHNICAL PROPERTIES

Primary Properties	Unit	Nominal Value	Test Method
Tensile Strength	Mpa	11	IEC 60811-501
Elongation at break	%	170	IEC 60811-501
Oxygen Index	%	45	ISO 4589-2
Density	g/cc	1.57	ASTM D-792
Melt Flow Rate (21.6 kg, 150°C)	g/10 mins	9	ISO 1133
Mechanical Properties			
Tear Strength	N/mm	4	BS 6469:99.1
Tensile strength after 7 days at 100°C	Mpa	14	IEC 60811-401
Variation	%	+25	
Elongation at break after 7 days at 100°C	%	120	IEC 60811-401
Variation	%	-30	
Thermomechanical Properties			
Hot pressure at 80°C	%	35	IEC 60811-508
Cold elongation at -25°C	%	35	IEC 60811-505
Cold impact at -25°C	%	PASS	IEC 60811-506
Brittleness temperature	°C	-19	ASTM D-746
Fire and Smoke Test Properties			
Flammability temperature index	°C	330	ISO 4589-3
Halogen acid gas evolution	%	ZERO	IEC 60754-1
Corrosivity of gases			IEC 60754-2
pH		5.5	
Conductivity	µS/mm	7.5	
Smoke density – Flaming mode	Ds max	90	ASTM E-662
Time to maximum	minutes	12	
Smoke density – Non-flaming mode	Ds max	199	ASTM E-662
Time to maximum	minutes	13	
Toxicity index		0.4	DEF STAN 02-713

**Oil Resistance Properties**

Medium	Temperature	Duration	Tensile Strength (Mpa)	Variation (%)	Elongation at Break (%)	Variation (%)
IRM 902	23°C	7 days	11	0	170	0
IRM 902	70°C	4 hours	9	-20	185	+10
SAE 20	70°C	4 hours	8	-25	195	+15
IRM 903	23°C	7 days	7	-35	135	-20

**Electrical Properties**

	Unit	Nominal Value	Test Method
Dielectric constant at 50Hz		4.4	ASTM D-150
Dissipation factor at 50Hz		0.04	ASTM D-150
Insulation resistance at 20°C			BS 6469:99.2
Initial value	ohm.cm	$1 \times 10^{14}$	
After 12 hours immersion in water	ohm.cm	$5 \times 10^{12}$	

**Other Properties**

Mooney viscosity (1+4 mins, 140°C)		40	ASTM D-1646
Hardness	Shore D	55	ASTM D-2240
Water immersion – 7 days at 70°C			BS 6469:99.1
Variation of tensile strength	%	+2	
Variation of elongation at break	%	-6	

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