

## megolon S300

### Sheathing Grade Compound

#### DESCRIPTION

MEGOLON™ S300 is a thermoplastic, halogen free, fire retardant cable sheathing compound for general purpose applications.

#### APPLICATIONS

- UK: BS 7655:6.1 types LTS1 and LTS3, BS7878:7 (HD 624.7 S1) and LUL SE569. MEGOLON™ S300 also meets the requirements of BS 7655:4.1 type TM1 for a general purpose PVC sheathing compound
- 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	15	IEC 60811-1-1
Elongation at break	%	150	IEC 60811-1-1
Oxygen Index	%	35	ISO 4589-2
Density	g/cc	1.55	ASTM D-792
Melt Flow Rate (21.6 kg, 150°C)	g/10 mins.	4.5	ISO 1133

#### Mechanical Properties

Tear strength	N/mm	5	BS 6469:99.1
Tensile strength after 7 days at 100°C	MPa	19	IEC 60811-1-2
Variation	%	+26	
Elongation at break after 7 days at 100°C	%	112	IEC 60811-1-2
Variation	%	-25	

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## Thermomechanical Properties

Hot pressure at 80°C	%	14	IEC 60811-3-1
Hot deformation at 90°C	%	7	BS 6469:99.1
Cold elongation at -25°C	%	40	IEC 60811-1-4
Cold impact at -25°C	%	PASS	IEC 60811-1-4

## Fire and Smoke Test Properties

	Unit	Nominal Value	Test Method
Flammability temperature index	°C	270	ISO 4589-3
Halogen acid gas evolution	%	ZERO	IEC 60754-1
Corrosivity of gases			IEC 60754-2
pH		5.5	
Conductivity	µS/cm	14	
Smoke density – Flaming mode	Ds max	131	ASTM E-662
Time to maximum	minutes	9	
Smoke density – Non-flaming mode	Ds max	196	ASTM E-662
Time to maximum	minutes	12	
Toxicity index		2	NES 713

## Oil Resistance Properties

Medium	Temperature	Duration	Tensile Strength (MPa)	Variation (%)	Elongation at Break (%)	Variation (%)	Volume Swell (%)
IRM 902	23°C	7 days	14	-7	166	+11	+1
IRM 902	70°C	4 hours	12	-22	225	+50	+3
IRM 903	23°C	7 days	13	-11	169	+13	+10

## Electrical Properties

	Unit	Nominal Value	Test Method
Dielectric constant at 50Hz		4.8	ASTM D-150
Dissipation factor at 50Hz		0.02	ASTM D-150
Insulation resistance at 20°C			BS 6469:99.2
Initial value	ohm.cm	1 x 10 <sup>14</sup>	
After 12 hours immersion in water	ohm.cm	5 x 10 <sup>13</sup>	

## Other Properties

Mooney viscosity (1+4 mins, 140°C)		45	ASTM D-1646
Hardness	Shore D	58	ASTM D-2240
Ozone resistance		PASS	ASTM D-470
Water immersion – 7 days at 70°C			BS 6469:99.1
Variation of tensile strength	%	0	
Variation of elongation at break	%	-15	

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