

## megolon S501

### Sheathing Grade Compound

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#### DESCRIPTION

MEGOLON™ S501 is a thermoplastic, halogen free, fire retardant cable sheathing compound formulated specifically to meet BSI requirements.

#### APPLICATIONS

- UK: BS 7655:6.1 types LTS 1 and LTS 3

#### TECHNICAL PROPERTIES

Primary Properties	Unit	Nominal Value	Test Method
Tensile strength	MPa	14	IEC 60811-1-1
Elongation at break	%	240	IEC 60811-1-1
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.	7	ISO 1133

#### Mechanical Properties

Tear strength	N/mm	9	BS 6469:99.1
Tensile strength after 7 days at 100°C	MPa	14.1	IEC 60811-1-2
Variation	%	+1	
Elongation at break after 7 days at 100°C	%	221	IEC 60811-1-2
Variation	%	-8	

#### Thermomechanical Properties

Hot pressure at 80°C	%	10	IEC 60811-3-1
Hot deformation at 90°C	%	5	BS 6469:99.1
Cold elongation at -25°C	%	96	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	255	ISO 4589-3
Halogen acid gas evolution	%	ZERO	IEC 60754-1
Corrosivity of gases			IEC 60754-2
pH		6.3	
Conductivity	µS/cm	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		0.6	NES 713

## Oil Resistance Properties

Medium	Temperature	Duration	Tensile Strength (MPa)	Variation (%)	Elongation at Break (%)	Variation (%)
IRM 902	23°C	7 days	13.3	-5	228	-5
IRM 902	70°C	4 hours	12.6	-10	264	+10
SAE 20	70°C	4 hours	10.5	-25	276	+15
IRM 903	23°C	7 days	11.9	-15	216	-10

## 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	$6 \times 10^{14}$	
After 12 hours immersion in water	ohm.cm	$2 \times 10^{14}$	

## Other Properties

	Unit	Nominal Value	Test Method
Hardness	Shore D	54	ASTM D-2240
Ozone resistance		PASS	ASTM D-470
Water immersion – 7 days at 70°C			BS 6469:99.1
Variation of tensile strength	%	-13	
Variation of elongation at break	%	+6	

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