

MEGOLON™ S501

Thermoplastic
AlphaGary

Message:

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

General Information			
Features	Flame Retardant		
	Halogen Free		
Uses	Cable Jacketing		
Agency Ratings	BS 7655:6.1 Type LTS 1		
	BS 7655:6.1 Type LTS 3		
Forms	Pellets		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.46	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (150°C/21.6 kg)	7.0	g/10 min	ISO 1133
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	54		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			
-- ¹	14.1	MPa	IEC 60811-1-2
--	14.0	MPa	IEC 60811-1-1
Tensile Strain			
Break ²	220	%	IEC 60811-1-2
Break	240	%	IEC 60811-1-1
Elongation at Break			
after 4 hours, in IRM 902 Oil : 70°C	260	%	
after 4 hours, in SAE 20 Oil : 70°C	280	%	
after 7 days, in IRM 902 Oil : 23°C	230	%	
after 7 days, in IRM 903 Oil : 23°C	220	%	
Tensile Strength			
after 4 hours, in IRM 902 Oil : 70°C	12.6	MPa	
after 4 hours, in SAE 20 Oil : 70°C	10.5	MPa	
after 7 days, in IRM 902 Oil : 23°C	13.3	MPa	
after 7 days, in IRM 903 Oil : 23°C	11.9	MPa	

Cold Elongation (-25°C)	96	%	IEC 60811-1-4
Cold Impact (-25°C)	pass		IEC 60811-1-4
Hot Deformation (90°C)	5.0	%	BS 6469 99.1
Hot Pressure Test (80°C)	10	%	IEC 60811-3-1
Insulation Resistance			BS 6469 99.2
20°C	6.0E+14	ohms·cm	
after 12 hours immersion in water : 20°C	2.0E+14	ohms·cm	
Acid Gas Emission Conductivity	13.0	µS/cm	IEC 60754-2
Acid Gas Emission pH	6.30		IEC 60754-2
Flammability Temperature Index	255	°C	ISO 4589-3
Smoke Density			ASTM E662
Flaming mode ³	< 57	Ds	
Non-flaming mode ⁴	< 280	Ds	
Toxicity	0.600		NES 713
Halogen Acid Gas Evolution	0.0	%	IEC 60754-1
Ozone Resistance	pass		ASTM D470
Draw Down	1.5:1.0		
Extruder Screw Compression Ratio	1.0:1.0 to 2.0:1.0		
Elastomers	Nominal Value	Unit	Test Method
Tear Strength	9.00	kN/m	BS 6469 99.1
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air (100°C, 168 hr)	1.0	%	
Change in Tensile Strain at Break in Air (100°C, 168 hr)	-8.0	%	
Change in Tensile Stress			
23°C, 168 hr, in IRM 902 Oil	-5.0	%	
23°C, 168 hr, in IRM 903 Oil	-15	%	
70°C, 4 hr, in IRM 902 Oil	-10	%	
70°C, 4 hr, in SAE 20 Oil	-25	%	
70°C, 168 hr, in Water	-13	%	BS 6469 99.1
Change in Tensile Strain at Break			
23°C, 168 hr, in IRM 902 Oil	-5.0	%	
23°C, 168 hr, in IRM 903 Oil	-10	%	
70°C, 4 hr, in IRM 902 Oil	10	%	
70°C, 4 hr, in SAE 20 Oil	15	%	
70°C, 168 hr, in Water	6.0	%	BS 6469 99.1
Electrical	Nominal Value	Unit	Test Method
Dielectric Constant (50 Hz)	4.30		ASTM D150
Dissipation Factor (50 Hz)	0.015		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Oxygen Index	35	%	ISO 4589-2
Extrusion	Nominal Value	Unit	

Drying Temperature	60.0 to 70.0	°C
Cylinder Zone 1 Temp.	135	°C
Cylinder Zone 2 Temp.	140	°C
Cylinder Zone 3 Temp.	145	°C
Cylinder Zone 4 Temp.	150	°C
Cylinder Zone 5 Temp.	160	°C
Melt Temperature	165 to 175	°C
Die Temperature	165	°C

NOTE

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|----|-----------------------------|
| 1. | after 7 days at 100°C |
| 2. | after 7 days at 100°C |
| 3. | Time to maximum: 7 minutes |
| 4. | Time to maximum: 12 minutes |

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