

MEGOLON™ S642

Thermoplastic

AlphaGary

Message:

MEGOLON™ S642 is a thermoplastic, halogen free, fire retardant sheathing compound for general purpose applications.

APPLICATIONS

Data cables

Telecommunication cables

Low and high voltage power cables

General Information			
Features	Flame Retardant		
	General Purpose		
	Halogen Free		
Uses	Cable Jacketing		
	Communication Wire Jacketing		
	General Purpose		
	High Voltage Insulation		
	Low Voltage Insulation		
Forms	Pellets		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.53	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (150°C/21.6 kg)	6.0	g/10 min	ISO 1133
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	59		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			
-- ¹	14.4	MPa	IEC 60811-1-2
--	12.5	MPa	IEC 60811-1-1
Tensile Strain			
Break ²	120	%	IEC 60811-1-2
Break	150	%	IEC 60811-1-1
Elongation at Break			
after 4 hours, in IRM 902 Oil : 70°C	200	%	
after 7 days, in IRM 902 Oil : 23°C	160	%	
after 7 days, in IRM 903 Oil : 23°C	130	%	
Tensile Strength			
after 4 hours, in IRM 902 Oil : 70°C	10.6	MPa	

after 7 days, in IRM 902 Oil : 23°C	12.5	MPa	
after 7 days, in IRM 903 Oil : 23°C	10.6	MPa	
Cold Elongation (-25°C)	85	%	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)	30	%	IEC 60811-3-1
Insulation Resistance			BS 6469 99.2
20°C	5.0E+13	ohms·cm	
after 12 hours immersion in water : 20°C	8.0E+11	ohms·cm	
Acid Gas Emission Conductivity	8.00	μS/cm	IEC 60754-2
Acid Gas Emission pH	5.00		IEC 60754-2
Flammability Temperature Index	290	°C	ISO 4589-3
Smoke Density			ASTM E662
Flaming mode ³	< 160	Ds	
Non-flaming mode ⁴	< 160	Ds	
Toxicity	1.10		NES 713
Halogen Acid Gas Evolution	0.0	%	IEC 60754-1
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	5.00	kN/m	BS 6469 99.1
Aging	Nominal Value	Unit	
Change in Tensile Strength in Air (100°C, 168 hr)	15	%	
Change in Tensile Strain at Break in Air (100°C, 168 hr)	-20	%	
Change in Tensile Stress			
23°C, 168 hr, in IRM 902 Oil	0.0	%	
23°C, 168 hr, in IRM 903 Oil	-15	%	
70°C, 4 hr, in IRM 902 Oil	-15	%	
Change in Tensile Strain at Break			
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	30	%	
Change in Volume			
23°C, 168 hr, in IRM 902 Oil	1.0	%	
23°C, 168 hr, in IRM 903 Oil	35	%	
70°C, 4 hr, in IRM 902 Oil	20	%	
Electrical	Nominal Value	Unit	Test Method
Dielectric Constant (50 Hz)	3.95		ASTM D150
Dissipation Factor (50 Hz)	0.033		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Oxygen Index	40	%	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: 18 minutes |
| 4. | Time to maximum: 11 minutes |

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

