

MEGOLON™ S650

Thermoplastic
AlphaGary

Message:

MEGOLON™ S650 is a thermoplastic, halogen free, fire retardant sheathing compound possessing both improved processing characteristics, and good all-round properties.

APPLICATIONS

CENELEC: HD 624.7 S1

UK: BS 7878:7

Germany: DIN VDE 0207 part 24 type HM4

General Information			
Features	Flame Retardant		
	Halogen Free		
Uses	Cable Jacketing		
Agency Ratings	BS 7878:7		
	DIN VDE 0207 Part 24, Type HM4		
Forms	Pellets		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.52	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (150°C/21.6 kg)	6.5	g/10 min	ISO 1133
Mooney Viscosity (ML 1+4, 140°C)	40	MU	ASTM D1646
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	54		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			
-- ¹	14.0	MPa	IEC 60811-1-2
--	11.0	MPa	IEC 60811-1-1
Tensile Strain			
Break ²	160	%	IEC 60811-1-2
Break	170	%	IEC 60811-1-1
Elongation at Break			
after 4 hours, in IRM 902 Oil : 70°C	160	%	
after 7 days, in IRM 902 Oil : 23°C	170	%	
after 7 days, in IRM 903 Oil : 23°C	160	%	
Tensile Strength			
after 4 hours, in IRM 902 Oil : 70°C	9.50	MPa	
after 7 days, in IRM 902 Oil : 23°C	11.0	MPa	

after 7 days, in IRM 903 Oil : 23°C	9.00	MPa	
Cold Elongation (-25°C)	80	%	IEC 60811-1-4
Cold Impact (-25°C)	pass		IEC 60811-1-4
Hot Deformation (90°C)	1.5	%	BS 6469 99.1
Hot Pressure Test (90°C)	35	%	IEC 60811-3-1
Insulation Resistance			BS 6469 99.2
20°C	3.0E+14	ohms·cm	
after 12 hours immersion in water : 20°C	2.0E+13	ohms·cm	
Acid Gas Emission Conductivity	18.0	μS/cm	IEC 60754-2
Acid Gas Emission pH	5.30		IEC 60754-2
Flammability Temperature Index	270	°C	ISO 4589-3
Smoke Density			ASTM E662
Flaming mode ³	< 91	Ds	
Non-flaming mode ⁴	270	Ds	
Toxicity	0.500		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	6.50	kN/m	BS 6469 99.1
Aging	Nominal Value	Unit	
Change in Tensile Strength in Air (110°C, 168 hr)	26	%	
Change in Tensile Strain at Break in Air (110°C, 168 hr)	-6.0	%	
Change in Tensile Stress			
23°C, 168 hr, in IRM 902 Oil	-1.0	%	
23°C, 168 hr, in IRM 903 Oil	-18	%	
70°C, 4 hr, in IRM 902 Oil	-15	%	
Change in Tensile Strain at Break			
23°C, 168 hr, in IRM 902 Oil	-3.0	%	
23°C, 168 hr, in IRM 903 Oil	-9.0	%	
70°C, 4 hr, in IRM 902 Oil	-8.0	%	
Change in Volume			
23°C, 168 hr, in IRM 902 Oil	2.0	%	
23°C, 168 hr, in IRM 903 Oil	6.0	%	
70°C, 4 hr, in IRM 902 Oil	2.0	%	
Electrical	Nominal Value	Unit	Test Method
Dielectric Constant (50 Hz)	3.80		ASTM D150
Dissipation Factor (50 Hz)	0.023		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Oxygen Index	36	%	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 110°C |
| 2. | after 7 days at 110°C |
| 3. | Time to maximum: 14 minutes |
| 4. | Time to maximum: 11 minutes |

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