

MEGOLON™ S300

Thermoplastic
AlphaGary

Message:

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

General Information			
Features	Flame Retardant		
	General Purpose		
	Halogen Free		
Uses	Cable Jacketing		
	General Purpose		
Agency Ratings	BS 7655 4.1 type TM1		
	BS 7655:6.1 Type LTS 1		
	BS 7655:6.1 Type LTS 3		
	BS 7878:7 (HD 624.7 S1)		
	DIN VDE 0207, Part 24, Type HM2		
	NFC 32-323		
Forms	Pellets		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.55	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (150°C/21.6 kg)	4.5	g/10 min	ISO 1133
Mooney Viscosity (ML 1+4, 140°C)	45	MU	ASTM D1646
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	58		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			
-- ¹	19.0	MPa	IEC 60811-1-2
--	15.0	MPa	IEC 60811-1-1
Tensile Strain			
Break ²	110	%	IEC 60811-1-2
Break	150	%	IEC 60811-1-1

Elongation at Break			
after 4 hours, in IRM 902 Oil : 70°C	230	%	
after 7 days, in IRM 902 Oil : 23°C	170	%	
after 7 days, in IRM 903 Oil : 23°C	170	%	
Tensile Strength			
after 4 hours, in IRM 902 Oil : 70°C	12.0	MPa	
after 7 days, in IRM 902 Oil : 23°C	14.0	MPa	
after 7 days, in IRM 903 Oil : 23°C	13.0	MPa	
Cold Elongation (-25°C)	40	%	IEC 60811-1-4
Cold Impact (-25°C)	pass		IEC 60811-1-4
Hot Deformation (90°C)	7.0	%	BS 6469 99.1
Hot Pressure Test (80°C)	14	%	IEC 60811-3-1
Insulation Resistance			BS 6469 99.2
20°C	1.0E+14	ohms·cm	
after 12 hours immersion in water : 20°C	5.0E+13	ohms·cm	
Acid Gas Emission Conductivity	14.0	µS/cm	IEC 60754-2
Acid Gas Emission pH	5.50		IEC 60754-2
Flammability Temperature Index	270	°C	ISO 4589-3
Smoke Density			ASTM E662
Flaming mode ³	< 130	Ds	
Non-flaming mode ⁴	< 200	Ds	
Toxicity	2.00		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	5.00	kN/m	BS 6469 99.1
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air (100°C, 168 hr)	26	%	
Change in Tensile Strain at Break in Air (100°C, 168 hr)	-25	%	
Change in Tensile Stress			
23°C, 168 hr, in IRM 902 Oil	-7.0	%	
23°C, 168 hr, in IRM 903 Oil	-11	%	
70°C, 4 hr, in IRM 902 Oil	-22	%	
70°C, 168 hr, in Water	0.0	%	BS 6469 99.1
Change in Tensile Strain at Break			
23°C, 168 hr, in IRM 902 Oil	11	%	
23°C, 168 hr, in IRM 903 Oil	13	%	
70°C, 4 hr, in IRM 902 Oil	50	%	
70°C, 168 hr, in Water	-15	%	BS 6469 99.1

Change in Volume			
23°C, 168 hr, in IRM 902 Oil	1.0	%	
23°C, 168 hr, in IRM 903 Oil	10	%	
70°C, 4 hr, in IRM 902 Oil	3.0	%	
Electrical	Nominal Value	Unit	Test Method
Dielectric Constant (50 Hz)	4.80		ASTM D150
Dissipation Factor (50 Hz)	0.020		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			
1.	after 7 days at 100°C		
2.	after 7 days at 100°C		
3.	Time to maximum: 9 minutes		
4.	Time to maximum: 12 minutes		

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