Solvay Specialty Polymers HyflonÂ® MFAÂ® 1041 Perfluoropolymer

Category : Polymer , Thermoplastic , Fluoropolymer , TFE/Perfluoromethylvinylether Copolymer (MFA)

Material Notes:

HyflonÂ® MFA 1041 is a high extrusion speed resin specifically designed for insulation for plenum-rated LAN cables. MFA 1041 delivers superior electrical performance in addition to its excellent fire characteristics, physical properties, and processing. The unique chemical structure of MFA provides the superior properties necessary for the increasingly demanding telecommunications industry. Cables manufactured with MFA 1041 have met the Telecommunications Industry Association (TIA) Category 6 standard. The extremely low attenuation of MFA 1041 makes it a logical choice for the developing Augmented Category 6 standard. Cables made from MFA 1041 have met the fire performance requirements called out in NFPA 90a ("Standard for Air- Conditioning and Ventilating Systems"). HyflonÂ® MFA 1041 is not recommended for heavy wall applications where significant thermal stress crack resistance is required.Features: Flame Retardant; Good Electrical PropertiesUses: Telecommunications; Tubing; Wire & Cable ApplicationsAdditional Properties: Crosshead Temperature - 390 to 410 Â°C; Flange Temperature - 390 to 400 Â°C; Flex Life - ASTM D2176 6.0E+2 to 1.0E+3 Cycles; Heat of Fusion - DSC 18.0 to 26.0 J/g; Potential Heat - NFPA 259 970 J/g; Wire Preheat - 100 to 130 Â°CInformation provided by Solvay Specialty Polymers.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Hyflon-MFA-1041-Perfluoropolymer.php

Physical Properties	Metric	English	Comments
Density	2.13 - 2.18 g/cc	0.0770 - 0.0788 lb/inÂ³	ASTM D792
Melt Flow	22 - 28 g/10 min @Load 5.00 kg, Temperature 372 Â°C	22 - 28 g/10 min @Load 11.0 lb, Temperature 702 Â°F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	55 - 60	55 - 60	ASTM D2240
Tensile Strength at Break	>= 20.0 MPa	>= 2900 psi	ASTM D638
Elongation at Break	>= 280 %	>= 280 %	ASTM D638
Tensile Modulus	0.500 - 0.600 GPa	72.5 - 87.0 ksi	1.0 mm/min; ASTM D638
Izod Impact, Notched	NB	NB	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	120 - 200 Âµm/m-Â°C	66.7 - 111 Âµin/in-Â°F	
Specific Heat Capacity	0.900 - 1.10 J/g-Â°C	0.215 - 0.263 BTU/lb-Â°F	ASTM C351
Thermal Conductivity	0.200 W/m-K @Temperature 40.0 Â°C	1.39 BTU-in/hr-ftÂ²-Â°F @Temperature 104 Â°F	ASTM C177

Thermal Properties	Metric	English	Comments
Melting Point	250 - 290 Â°C	482 - 554 Â°F	DSC
Flammability, UL94	V-0	V-0	
Oxygen Index	95 %	95 %	ASTM D2863

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+17 ohm-cm	>= 1.00e+17 ohm-cm	ASTM D257
Surface Resistance	>= 1.00e+17 ohm	>= 1.00e+17 ohm	ASTM D257
Dielectric Constant	2.0 @Frequency 2.10e+9 Hz	2.0 @Frequency 2.10e+9 Hz	ASTM D150
	2.0 @Frequency 8.50e+8 Hz	2.0 @Frequency 8.50e+8 Hz	ASTM D150
	2.0 @Frequency 1.00e+6 Hz	2.0 @Frequency 1.00e+6 Hz	ASTM D150
Dielectric Strength	35.0 - 40.0 kV/mm	889 - 1020 kV/in	ASTM D149
Dissipation Factor	0.00020 @Frequency 8.50e+8 Hz	0.00020 @Frequency 8.50e+8 Hz	ASTM D150
	0.00020 @Frequency 1.00e+6 Hz	0.00020 @Frequency 1.00e+6 Hz	ASTM D150
	0.00090 @Frequency 2.10e+9 Hz	0.00090 @Frequency 2.10e+9 Hz	ASTM D150

Processing Properties	Metric	English	Comments
Zone 1	250 - 290 Â°C	482 - 554 Â°F	
Zone 2	290 - 330 Â°C	554 - 626 Â°F	
Zone 3	340 - 360 Â°C	644 - 680 Â°F	
Zone 4	360 - 390 Â°C	680 - 734 Â°F	
Zone 5	375 - 395 Â°C	707 - 743 Â°F	
Adapter Temperature	390 - 400 Â°C	734 - 752 Â°F	

Processing Properties	Metric	English	Comments
Melt Temperature	400 Â°C	752 Â°F	
Die Cooling Temperature	400 - 420 Â°C	752 - 788 Â°F	

Descriptive Properties	Value	Comments
Agency Ratings	NFPA Code 90a	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	Latin America	
	North America	
Form	Pellets	
Processing Technique	Extrusion Coating	
RoHS Compliance	RoHS Compliant	

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