Vyncolit® FS-80

Diallyl Phthalate

Vyncolit N.V.

Message:

Vyncolit FS-80 is a diallyl phthalate (DAP) material containing long glass fiber. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. The processing methods are: resin transfer molding, compression molding or injection molding.
The main features of the Vyncolit FS-80 are:
chemical resistance
Good dimensional stability
moisture resistance
Impact resistance
Wear-resistant
Typical application areas include:
Electrical/electronic applications
Wire and cable
Aerospace
military applications

General Information	
Filler / Reinforcement	Long glass fiber
Features	Good dimensional stability Moisture resistance Antibacterial property Solvent resistance Impact resistance, high Good electrical performance Good chemical resistance alkali resistance Good wear resistance Fuel resistance Heat resistance, high acid resistance
Uses	Membrane key switch Aircraft applications Insulating material Connector Communication Equipment
Agency Ratings	MIL C-24308
Forms	flake
Processing Method	Resin transfer molding Compression molding Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.74	g/cm³	ASTM D792
Bulk Factor	6.0		ASTM D1895
Molding Shrinkage - Flow (Compression Molded)	0.15 - 0.35	%	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	68.9	MPa	ASTM D638
Flexural Modulus	13800	MPa	ASTM D790
Flexural Strength	131	MPa	ASTM D790
Compressive Strength	152	MPa	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	190	J/m	ASTM D256A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	260	°C	ASTM D648
CLTE - Flow	1.8E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.34	W/m/K	ASTM C177
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength			ASTM D149
-- [1]	15	kV/mm	ASTM D149
-- [2]	13	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
1 kHz	4.30		ASTM D150
1 MHz	4.10		ASTM D150
Dissipation Factor			ASTM D150
1 kHz	0.010		ASTM D150
1 MHz	0.015		ASTM D150
Arc Resistance	145	sec	ASTM D495
Comparative Tracking Index (CTI)	600	V	UL 746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Oxygen Index	41	%	ASTM D2863
Injection	**Nominal Value**	**Unit**	
Rear Temperature	60.0	°C	
Middle Temperature	76.7	°C	
Nozzle Temperature	87.8	°C	
Processing (Melt) Temp	110 - 116	°C	
Mold Temperature	160 - 182	°C	
Injection instructions			

Plastication: 50rpmBack Pressure (gauge): slightInjection Pressure: set to give 5 to 15 sec injection timeHold Pressure: 1/2 of injection pressureCure Time, 0.125 in: 40 secThe value listed as Thermal Conductivity, ASTM C177, was tested in accordance with ASTM F433.Resin Isomer, DAP: ISOWater Absorption, ASTM D570, 48 hrs, 50°C: 0.35%Flammability Ignition, ASTM D229: 120 secFlammability Burn, ASTM D229: 35 secDielectric Strength, ASTM D149, 60 Hz, Method A, wet: 375 V/milDielectric Strength, ASTM D149, 60 Hz, Method B, wet: 340 V/milDielectric Constant, ASTM D150, 1000 Hz, wet: 4.3Dielectric Constant, ASTM D150, 1000000 Hz, wet: 4.1Dissipation Factor, ASTM D150, 1000 Hz, wet: 0.01Dissipation Factor, ASTM D150, 1000000 Hz, wet: 0.015Compression and Transfer Molding Conditions:
Preforming Pressure: 8000 to 12000 psi
Preheat Temperature: 220 to 230 °F
Preheat Time: 45 sec
Mold Temperature: 320 to 350 °F
Compression Mold Pressure: 3500 to 6000 psi
Transfer Mold Pressure: 2500 to 5000 psi
Cure Time, 0.125 in: 45 to 70 sec

NOTE	
1.	Method A (short time)
2.	Method B (step by step)

Recommended distributors for this material

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