Vyncolit® TEM 9010

Epoxy; Epoxide

Vyncolit N.V.

Message:

Vyncolit TEM 9010 is an epoxy. Epoxy resin material, containing filler glass fiber reinforced material. 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 Vyncolit TEM 9010 are:
chemical resistance
low viscosity
Good toughness
Heat resistance
Typical application areas include:
Electrical/electronic applications
food contact applications
military applications

General Information	
Filler / Reinforcement	Glass fiber reinforced material
Features	The degassing effect is low to no Low viscosity Solvent resistance Anti-salt water/fog Good thermal shock resistance Good chemical resistance alkali resistance acid resistance Good toughness Non-corrosive
Uses	Electrical components Military application Connector
Agency Ratings	FDA not rated USDA Unspecified Approval
Forms	Particles
Processing Method	Resin transfer molding Compression molding Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.77	g/cm³	ASTM D792

Bulk Factor	2.1		ASTM D1895
Molding Shrinkage - Flow (Transfer Molded)	0.25	%	ASTM D955
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	110		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	96.5	MPa	ASTM D638
Flexural Modulus	17200	MPa	ASTM D790
Flexural Strength	159	MPa	ASTM D790
Compressive Strength	207	MPa	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	43	J/m	ASTM D256A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	160	°C	ASTM D648
CLTE - Flow	4.0E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.33	W/m/K	ASTM C177
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength			ASTM D149
-- [1]	15	kV/mm	ASTM D149
-- [2]	14	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	4.00		ASTM D150
Dissipation Factor (1 MHz)	0.014		ASTM D150
Arc Resistance	180	sec	ASTM D495
Injection	**Nominal Value**	**Unit**	
Middle Temperature	60.0 - 82.2	°C	
Nozzle Temperature	82.2 - 93.3	°C	
Processing (Melt) Temp	93.3 - 116	°C	
Mold Temperature	149 - 177	°C	
Injection Pressure	34.5 - 68.9	MPa	
Holding Pressure	13.8 - 34.5	MPa	
Back Pressure	0.345	MPa	

Injection instructions

Gauge: 0.3The value listed as Thermal Conductivity, ASTM C177, was tested in accordance with ASTM F433.Water Absorption, ASTM D570, 48 hrs, 50°C: 0.27%Dielectric Strength, ASTM D149, 60 Hz, Method A, wet: 390 V/milDielectric Strength, ASTM D149, 60 Hz, Method A, dry: 400 V/milDielectric Strength, ASTM D149, 60 Hz, Method B, wet: 350 V/milDielectric Strength, ASTM D149, 60 Hz, Method B, dry: 350 V/milDielectric Constant, ASTM D150, 1000000 Hz, dry: 4Dissipation Factor, ASTM D150, 1000000 Hz, dry: 0.014Bulk Factor, ASTM D1895: 2 to 2.2Compression and Transfer Molding Conditions:
Preheat Temperature: 180 to 225 °F
Mold Temperature: 325 to 370 °F
Compression Mold Pressure: 1000 to 5000 psi
Transfer Mold Pressure: 1500 to 8000 psi
Cure Time, 0.125 in: 60 to 90 sec

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

Recommended distributors for this material

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