

# Vyncolit® EM7302

Epoxy; Epoxide

Vyncolit N.V.

## Message:

EM 7302 is a long fiberglass reinforced epoxy molding compound, which features high strength and toughness for structural components. This compound is designed for applications requiring MIL-M-46069 certification.

General Information	
Filler / Reinforcement	Long glass fiber
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
	Non-corrosive
Uses	Electrical components
	Military application
	Connector
Agency Ratings	FDA not rated
	MIL MIL
	USDA Unspecified Approval
Appearance	Black
	Natural color
Forms	Particles
Processing Method	Resin transfer molding
	Compression molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.85	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (Compression Molded)	0.10	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	105		ASTM D785
Mechanical	Nominal Value	Unit	Test Method

Tensile Strength (Break, Compression Molded)	138	MPa	ASTM D638
Flexural Modulus (Compression Molded)	24000	MPa	ASTM D790
Flexural Strength (Break)	345	MPa	ASTM D790
Compressive Strength	255	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (Compression Molded)	1600	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, Compression Molded)	250	°C	ASTM D648
CLTE - Flow	1.2E-5	cm/cm/°C	ASTM E831
Thermal Conductivity	0.42	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength <sup>1</sup>	13	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	5.80		ASTM D150
Dissipation Factor (1 MHz)	0.017		ASTM D150
Arc Resistance	120	sec	ASTM D495
Injection instructions			

Gauge: 0.3The value listed as Thermal Conductivity, ASTM C177, was tested in accordance with ASTM C518.Water Absorption, ASTM D570, 48 hrs, 50°C: 0.15%DTUL @264psi - Unannealed, ASTM D648, Post Baked, Compression Molded: 250°CDielectric Strength, ASTM D149, 60 Hz, Method B, wet: 12.8 kV/mmDielectric Constant, ASTM D150, 1000000 Hz, dry: 5.8Dissipation Factor, ASTM D150, 1000000 Hz, dry: 0.017Compression and Transfer Molding Conditions:

Preheat Temperature: 200 to 225 °F

Mold Temperature: 270 to 330 °F

Compression Mold Pressure: 1000 to 8000 psi

Transfer Mold Pressure: 2500 to 8000 psi

Cure Time, 0.125 in: 150 to 300 sec

#### NOTE

1. Method B (step by step)

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