

# Vyncolit® E 2748

Epoxy; Epoxide

Vyncolit N.V.

## Message:

Vyncolit E 2748 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 E 2748 are:

flame retardant/rated flame

chemical resistance

low viscosity

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		
	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	1.76	g/cm <sup>3</sup>	ASTM D792
Bulk Factor	3.5		ASTM D1895

Molding Shrinkage - Flow (Transfer Molded)	0.30	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	115		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	75.8	MPa	ASTM D638
Flexural Modulus	9650	MPa	ASTM D790
Flexural Strength	117	MPa	ASTM D790
Compressive Strength	193	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	37	J/m	ASTM D256A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	288	°C	ASTM D648
CLTE - Flow	3.1E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.33	W/m/K	ASTM C177
RTI Elec	130	°C	UL 746
RTI Imp	130	°C	UL 746
RTI	130	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength			ASTM D149
-- <sup>1</sup>	15	kV/mm	ASTM D149
-- <sup>2</sup>	13	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	4.50		ASTM D150
Dissipation Factor (1 MHz)	0.010		ASTM D150
Arc Resistance	180	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm)	V-0		UL 94
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: 0.3%Dielectric Strength, ASTM D149, 60 Hz, Method A, wet: 380 V/milDielectric Strength, ASTM D149, 60 Hz, Method A, dry: 400 V/milDielectric Strength, ASTM D149, 60 Hz, Method B, wet: 340 V/milDielectric Strength, ASTM D149, 60 Hz, Method B, dry: 360 V/milDielectric Constant, ASTM D150, 1000000 Hz, dry: 4.5Dissipation Factor, ASTM D150, 1000000 Hz, dry: 0.01Bulk Factor, ASTM D1895: 3 to 4Compression 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

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

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

