# Vyncolit® 2061B

Molding Shrinkage - Flow (Compression

Molded)

### Epoxy; Epoxide

Vyncolit N.V.

#### Message:

Vyncolit 2061B is an epoxy; The epoxy resin material contains a 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 2061B are: flame retardant/rated flame chemical resistance low viscosity Heat resistance Typical application areas include: food contact applications Electrical/electronic 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		
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	1.95	g/cm³	ASTM D792
Bulk Factor	2.5		ASTM D1895

%

ASTM D955

0.30 - 0.50

Hardness	Nominal Value	Unit	Test Method
Barcol Hardness	70		ASTM D2583
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	55.2	MPa	ASTM D638
Flexural Modulus	14500	MPa	ASTM D790
Flexural Strength	131	MPa	ASTM D790
Compressive Strength	214	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	35	J/m	ASTM D256A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	149	°C	ASTM D648
CLTE - Flow	4.2E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.54	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
Electrical Dielectric Strength <sup>1</sup>	Nominal Value	Unit kV/mm	Test Method ASTM D149
Electrical Dielectric Strength <sup>1</sup> Dielectric Constant (1 MHz)	Nominal Value 13 3.50	Unit kV/mm	Test Method ASTM D149 ASTM D150
Electrical   Dielectric Strength <sup>1</sup> Dielectric Constant (1 MHz)   Dissipation Factor (1 MHz)	Nominal Value     13     3.50     0.019	Unit kV/mm	Test MethodASTM D149ASTM D150ASTM D150
Electrical   Dielectric Strength 1   Dielectric Constant (1 MHz)   Dissipation Factor (1 MHz)   Arc Resistance	Nominal Value     13     3.50     0.019     180	Unit kV/mm sec	Test Method ASTM D149 ASTM D150 ASTM D150 ASTM D495
Electrical Dielectric Strength <sup>1</sup> Dielectric Constant (1 MHz) Dissipation Factor (1 MHz) Arc Resistance Flammability	Nominal Value     13     3.50     0.019     180     Nominal Value	Unit kV/mm sec Unit	Test Method ASTM D149 ASTM D150 ASTM D150 ASTM D495 Test Method
ElectricalDielectric Strength 1Dielectric Constant (1 MHz)Dissipation Factor (1 MHz)Arc ResistanceFlammabilityFlame Rating (1.59 mm)	Nominal Value     13     3.50     0.019     180     Nominal Value     V-0	Unit kV/mm sec Unit	Test MethodASTM D149ASTM D150ASTM D150ASTM D495Test MethodUL 94
ElectricalDielectric Strength 1Dielectric Constant (1 MHz)Dissipation Factor (1 MHz)Arc ResistanceFlammabilityFlame Rating (1.59 mm)Oxygen Index	Nominal Value     13     3.50     0.019     180     Nominal Value     V-0     45	Unit kV/mm sec Unit	Test MethodASTM D149ASTM D150ASTM D150ASTM D495Test MethodUL 94ASTM D2863
ElectricalDielectric Strength 1Dielectric Constant (1 MHz)Dissipation Factor (1 MHz)Arc ResistanceFlammabilityFlame Rating (1.59 mm)Oxygen IndexInjection	Nominal Value     13     3.50     0.019     180     Nominal Value     V-0     45     Nominal Value	Unit kV/mm sec Unit % Unit	Test Method ASTM D149 ASTM D150 ASTM D150 ASTM D495 Test Method UL 94 ASTM D2863
ElectricalDielectric Strength 1Dielectric Constant (1 MHz)Dissipation Factor (1 MHz)Arc ResistanceFlammabilityFlame Rating (1.59 mm)Oxygen IndexInjectionMiddle Temperature	Nominal Value     13     3.50     0.019     180     Nominal Value     V-0     45     Nominal Value     60.0 - 82.2	Unit kV/mm sec Unit % Unit C	Test MethodASTM D149ASTM D150ASTM D150ASTM D495Test MethodUL 94ASTM D2863
ElectricalDielectric Strength 1Dielectric Constant (1 MHz)Dissipation Factor (1 MHz)Arc ResistanceFlammabilityFlame Rating (1.59 mm)Oxygen IndexInjectionMiddle TemperatureNozzle Temperature	Nominal Value     13     3.50     0.019     180     Nominal Value     V-0     45     Nominal Value     60.0 - 82.2     82.2 - 93.3	Unit kV/mm sec Unit % Unit Unit	Test Method ASTM D149 ASTM D150 ASTM D150 ASTM D495 Test Method UL 94 ASTM D2863
ElectricalDielectric Strength 1Dielectric Constant (1 MHz)Dissipation Factor (1 MHz)Arc ResistanceFlammabilityFlame Rating (1.59 mm)Oxygen IndexInjectionMiddle TemperatureNozzle TemperatureProcessing (Melt) Temp	Nominal Value   13   3.50   0.019   180   Nominal Value   V-0   45   Nominal Value   60.0 - 82.2   82.2 - 93.3   104 - 116	Unit kV/mm sec Unit % Unit Unit °C °C	Test MethodASTM D149ASTM D150ASTM D150ASTM D495Test MethodUL 94ASTM D2863
ElectricalDielectric Strength 1Dielectric Constant (1 MHz)Dissipation Factor (1 MHz)Arc ResistanceFlammabilityFlame Rating (1.59 mm)Oxygen IndexInjectionMiddle TemperatureNozzle TemperatureProcessing (Melt) TempMold Temperature	Nominal Value   13   3.50   0.019   180   Nominal Value   V-0   45   Nominal Value   60.0 - 82.2   82.2 - 93.3   104 - 116   135 - 177	Unit kV/mm sec Unit % Unit Unit °C °C °C	Test Method ASTM D149 ASTM D150 ASTM D150 ASTM D495 Test Method UL 94 ASTM D2863
ElectricalDielectric Strength 1Dielectric Constant (1 MHz)Dissipation Factor (1 MHz)Arc ResistanceFlammabilityFlame Rating (1.59 mm)Oxygen IndexInjectionMiddle TemperatureNozzle TemperatureProcessing (Melt) TempMold TemperatureInjection Pressure	Nominal Value   13   3.50   0.019   180   Nominal Value   V-0   45   Nominal Value   60.0 - 82.2   82.2 - 93.3   104 - 116   135 - 177   34.5 - 68.9	Unit kV/mm sec Unit % Unit Unit C C C C C C MPa	Test Method ASTM D149 ASTM D150 ASTM D150 ASTM D495 Test Method UL 94 ASTM D2863
ElectricalDielectric Strength 1Dielectric Constant (1 MHz)Dissipation Factor (1 MHz)Arc ResistanceFlammabilityFlame Rating (1.59 mm)Oxygen IndexInjectionMiddle TemperatureNozzle TemperatureProcessing (Melt) TempMold TemperatureInjection PressureHolding Pressure	Nominal Value   13   3.50   0.019   180   Nominal Value   V-0   45   Nominal Value   60.0 - 82.2   82.2 - 93.3   104 - 116   135 - 177   34.5 - 68.9   13.8 - 34.5	Unit   kV/mm   sec   Unit   %   Unit   °C   °C   °C   °C   MPa   MPa	Test Method ASTM D149 ASTM D150 ASTM D150 ASTM D495 Test Method UL 94 ASTM D2863
ElectricalDielectric Strength 1Dielectric Constant (1 MHz)Dissipation Factor (1 MHz)Arc ResistanceFlammabilityFlame Rating (1.59 mm)Oxygen IndexInjectionMiddle TemperatureNozzle TemperatureProcessing (Melt) TempMold TemperatureInjection PressureHolding PressureBack Pressure	Nominal Value   13   3.50   0.019   180   Nominal Value   V-0   45   Nominal Value   60.0 - 82.2   82.2 - 93.3   104 - 116   135 - 177   34.5 - 68.9   13.8 - 34.5   0.345	Unit kV/mm sec Unit Unit 0°C 0°C 0°C 0°C 0°C 0°C 0°C	Test Method ASTM D149 ASTM D150 ASTM D150 ASTM D495 Test Method UL 94 ASTM D2863

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: 0.2%Dielectric Strength, ASTM D149, 60 Hz, Method B, wet: 320 V/milDielectric Constant, ASTM D150, 1000000 Hz, wet: 3.5Dissipation Factor, ASTM D150, 1000000 Hz, wet: 0.019Bulk Factor, ASTM D1895: 2 to 3Compression and Transfer Molding Conditions:

Preheat Temperature: 180 to 220 °F

Mold Temperature: 250 to 530 °F

Compression Mold Pressure: 200 to 1500 psi

Transfer Mold Pressure: 100 to 2000 psi

Cure Time, 0.125 in: 75 sec

NOTE

1.

Method B (step by step)

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