Vyncolit® RX®1-510N

Diallyl Phthalate

Vyncolit N.V.

Message:

Vyncolit RX®1-510N is a diallyl phthalate (DAP) material containing mineral fillers. 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.
Vyncolit RX®The main features of 1-510N are:
chemical resistance
Flame Retardant
Good dimensional stability
moisture resistance
Impact resistance
Typical application areas include:
Electrical/electronic applications
Wire and cable
Aerospace
military applications

General Information	
Filler / Reinforcement	Mineral filler
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 Flame retardancy
Uses	Membrane key switch Aircraft applications Insulating material Connector Communication Equipment
Agency Ratings	MIL C-24308
Forms	Particles
Processing Method	Resin transfer molding Compression molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.66	g/cm³	ASTM D792
Bulk Factor	2.4		ASTM D1895
Molding Shrinkage - Flow (Compression Molded)	0.30 - 0.60	%	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	51.7	MPa	ASTM D638
Flexural Modulus	11000	MPa	ASTM D790
Flexural Strength	96.5	MPa	ASTM D790
Compressive Strength	138	MPa	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	24	J/m	ASTM D256A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	163	°C	ASTM D648
CLTE - Flow	2.9E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength			ASTM D149
-- [1]	16	kV/mm	ASTM D149
-- [2]	15	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
1 kHz	4.20		ASTM D150
1 MHz	3.70		ASTM D150
Dissipation Factor			ASTM D150
1 kHz	0.015		ASTM D150
1 MHz	0.017		ASTM D150
Arc Resistance	135	sec	ASTM D495
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 secResin Isomer, DAP: OrthoWater Absorption, ASTM D570, 48 hrs, 50°C: 0.5%Dielectric Strength, ASTM D149, 60 Hz, Method A, wet: 400 V/milDielectric Strength, ASTM D149, 60 Hz, Method B, wet: 375 V/milDielectric Constant, ASTM D150, 1000 Hz, wet: 4.2Dielectric Constant, ASTM D150, 1000000 Hz, wet: 3.7Dissipation Factor, ASTM D150, 1000 Hz, wet: 0.015Dissipation Factor, ASTM D150, 1000000 Hz, wet: 0.017Compression 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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