NOVALAC RX®831

Phenolic

Vyncolit N.V.

Message:

RX®831 is a fiberglass reinforced phenolic molding compound, with good dimensional stability and good strength at elevated temperatures.

General Information	
Filler / Reinforcement	Glass fiber reinforced material
Features	Ultra high toughness Good dimensional stability Low smoke High strength Antibacterial property Solvent resistance Good creep resistance alkali resistance acid resistance
Uses	Membrane key switch Pump parts Gear Electrical/Electronic Applications Electrical appliances Power/other tools Connector Application in Automobile Field Shell
Appearance	Black
Forms	flake
Processing Method	Resin transfer molding Compression molding Injection molding

Physical	Nominal Value	Unit	Test Method
Density	1.89	g/cm³	ISO 1183
Molding Shrinkage - Flow	0.10	%	ISO 294-4
Water Absorption (23°C, 24 hr)	0.040	%	ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (E-Scale)	90		ISO 2039-2

Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Break, Compression Molded)	70.0	MPa	ISO 527-2
Flexural Modulus (Compression Molded)	19000	MPa	ISO 178
Flexural Stress	130	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	3.5	kJ/m^2	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (1.8 MPa, Unannealed)	200	°C	ISO 75-2/A
Linear thermal expansion coefficient			ASTM E831
Flow	2.4E-5	cm/cm/°C	ASTM E831
Lateral	3.8E-5	cm/cm/°C	ASTM E831
Thermal Conductivity	0.64	W/m/K	ASTM C177
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength [1]	12	kV/mm	ASTM D149
Arc Resistance	180	sec	ASTM D495
Injection	**Nominal Value**	**Unit**	
Rear Temperature	60.0	°C	
Middle Temperature	73.9	°C	
Nozzle Temperature	87.8	°C	
Processing (Melt) Temp	98.9 - 116	°C	
Mold Temperature	166 - 188	°C	
Injection Pressure	100 - 248	MPa	
Holding Pressure	30.0 - 89.6	MPa	
Back Pressure	4.83 - 15.2	MPa	

Injection instructions

Plastication: 50rpmInjection Time: 2 to 8 secHold Time: 1 to 5 sec/mmCure Time, 0.125 in: 5 to 12 sec/mmThe value listed as Thermal Conductivity, ASTM C177, was tested in accordance with ASTM C518.Dielectric Strength, ASTM D149, 60 Hz, Method A, dry: 12 kV/mmPowder Density, ISO 60: 0.7 g/cm^3HDT A (1.80 MPa) Unannealed, ISO 75A, Post Baked: >282°CCompressive Strength, ISO 604: 280 MPa

NOTE	
1.	Method A (short time)

Recommended distributors for this material

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WECHAT