NOVALAC RX®448

Phenolic

Vyncolit N.V.

Message:

NOVALAC RX®448 is a phenolic (Phenolic) material, and its filler is fiber filler. 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.
NOVALAC RX®The main features of the 448 are:
flame retardant/rated flame
chemical resistance
Creep resistance
Good dimensional stability
Typical application areas include:
Electrical/electronic applications
engineering/industrial accessories
electrical appliances
House
Tools

General Information	
Filler / Reinforcement	Fiber filler
Features	Good dimensional stability Low smoke 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
Agency Ratings	ASTM D 5948, Type CFI-5
Forms	Particle
Processing Method	Resin transfer molding Compression molding Injection molding

Physical	Nominal Value	Unit	Test Method

Specific Gravity	1.43	g/cm³	ASTM D792
Bulk Factor	2.8		ASTM D1895
Molding Shrinkage - Flow (Compression Molded)	0.30	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.30	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (E-Scale)	70		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	48.3	MPa	ASTM D638
Flexural Modulus	8270	MPa	ASTM D790
Flexural Strength	68.9	MPa	ASTM D790
Compressive Strength	203	MPa	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	43	J/m	ASTM D256A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	188	°C	ASTM D648
Linear thermal expansion coefficient			ASTM D696
Flow	4.7E-5	cm/cm/°C	ASTM D696
Lateral	5.3E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.56	W/m/K	ASTM C177
RTI Elec	150	°C	UL 746
RTI Imp	150	°C	UL 746
RTI	150	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength			ASTM D149
-- [1]	5.9	kV/mm	ASTM D149
-- [2]	3.9	kV/mm	ASTM D149
Arc Resistance	65.0	sec	ASTM D495
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.59 mm	HB		UL 94
3.18 mm	HB		UL 94
Injection	**Nominal Value**	**Unit**	
Rear Temperature	60.0	°C	
Middle Temperature	73.9	°C	
Nozzle Temperature	98.9	°C	
Processing (Melt) Temp	98.9 - 110	°C	
Mold Temperature	160 - 171	°C	
Back Pressure	0.345	MPa	
Injection instructions			

Plastication: 50 to 65rpmInjection Pressure: Set to give 6 to 10 seconds injection timeHold Pressure: 50 to 100% of injection pressureHold Time: 15 sec minimumCure Time, 0.125 in: 40 to 45 secThe value listed as Thermal Conductivity, ASTM C177, was tested in accordance with ASTM F433.Water Absorption, ASTM D570, 48 hrs, 50°C: 1.5%Flexural Strain, ASTM D790: 0.81%Dielectric Strength, ASTM D149, 60 Hz, Method A, wet: 150 V/milDielectric Strength, ASTM D149, 60 Hz, Method B, wet: 100 V/milCompression and Transfer Molding Conditions:
Preforming Pressure: 8000 to 12000 psi
Preheat Temperature: 210 to 235 °F
Preheat Time: 45 sec
Mold Temperature: 330 to 360 °F
Compression Mold Pressure: 2500 to 5000 psi
Transfer Mold Pressure: 4000 to 6000 psi
Cure Time, 0.125 in: 40 to 50 sec

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

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