NOVALAC RX®873

Phenolic

Vyncolit N.V.

Message:

NOVALAC RX®873 is a phenolic (Phenolic) material, and its filler is 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.
NOVALAC RX®The main features of the 873 are:
chemical resistance
high strength
Creep resistance
Good dimensional stability
Good toughness
Typical application areas include:
Electrical/electronic applications
engineering/industrial accessories
electrical appliances
House
Tools

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
Forms	Particle
Processing Method	Resin transfer molding Compression molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.82	g/cm³	ASTM D792, ISO 1183
Bulk Factor	2.6		ASTM D1895
Molding Shrinkage			
Flow: Molding	0.10	%	ASTM D955
Flow direction	0.10	%	ISO 294-4
Water Absorption			
23°C, 24 hr	0.050	%	ASTM D570
23°C, 24 hr	0.040	%	ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			
E scale	85		ASTM D785
E scale	90		ISO 2039-2
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			
Fracture	60.0	MPa	ISO 527-2
--	65.5	MPa	ASTM D638
Flexural Modulus			
--	16500	MPa	ASTM D790
--	17000	MPa	ISO 178
Flexural Strength			
--	103	MPa	ASTM D790
--	120	MPa	ISO 178
Compressive Strength	224	MPa	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
--	51	J/m	ASTM D256A
--	3.5	kJ/m²	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
1.8 MPa, not annealed	193	°C	ASTM D648
1.8 MPa, not annealed	205	°C	ISO 75-2/A
Linear thermal expansion coefficient			ASTM D696
Flow	2.2E-5	cm/cm/°C	ASTM D696
Lateral	3.4E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.64	W/m/K	ASTM C177
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength			
-- [1]	13	kV/mm	ASTM D149
-- [2]	11	kV/mm	ASTM D149

--	13	kV/mm	IEC 60243-1
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
Back Pressure	0.207	MPa

Injection instructions

Plastication: 50rpmInjection Pressure: Set to give 3 to 5 seconds injection timeHold Pressure: 50 to 100% of injection pressureHold Time: 10 sec minimumCure Time, 0.125 in: 30 to 35 secThe value listed as Thermal Conductivity, ASTM C177, was tested in accordance with ASTM F433.The value listed as Molding Shrinkage, ISO 294-4, was tested in accordance with ISO 2577 using compression molded specimens.Water Absorption, ASTM D570, 48 hrs, 50°C: 0.15%Flexural Strain, ASTM D790: 0.62%DTUL @264psi - Unannealed, ASTM D648, Post Baked: 550°FDielectric Strength, ASTM D149, 60 Hz, Method A, dry: 330 V/milDielectric Strength, ASTM D149, 60 Hz, Method B, dry: 285 V/milCompressive Strength, ISO 604: 245 MPaDielectric Strength, IEC 243, Method A, wet: 13 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

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