NOVALAC RX®611A

Phenolic

Vyncolit N.V.

Message:

NOVALAC RX®611A 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 611A are:
flame retardant/rated flame
chemical resistance
high strength
Creep resistance
Good dimensional stability
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
Agency Ratings	ASTM D 5948, Type MFH
Forms	Particles
Processing Method	Resin transfer molding

Compression molding

Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.74	g/cm³	ASTM D792, ISO 1183
Bulk Factor	2.1		ASTM D1895
Molding Shrinkage			
Flow	0.20	%	ASTM D955
Flow direction	0.20	%	ISO 294-4
Water Absorption (23°C, 24 hr)	0.040	%	ASTM D570, ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (E-Scale)	100		ASTM D785, ISO 2039-2
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			
Fracture	80.0	MPa	ISO 527-2
--	100	MPa	ASTM D638
Flexural Modulus			
--	15200	MPa	ASTM D790
--	16000	MPa	ISO 178
Flexural Strength			
--	176	MPa	ASTM D790
--	130	MPa	ISO 178
Compressive Strength	241	MPa	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
--	43	J/m	ASTM D256A
--	2.5	kJ/m²	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
1.8 MPa, not annealed	191	°C	ASTM D648
1.8 MPa, not annealed	190	°C	ISO 75-2/A
CLTE - Flow	1.7E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.52	W/m/K	ASTM C177
RTI Elec	180	°C	UL 746
RTI Imp	180	°C	UL 746
RTI	180	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength			
-- [1]	13	kV/mm	ASTM D149
-- [2]	12	kV/mm	ASTM D149
--	13	kV/mm	IEC 60243-1
Arc Resistance	145	sec	ASTM D495

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.59 mm	V-0		UL 94
3.18 mm	V-0		UL 94

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 C518.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: 0.2%Flexural Strain, ASTM D790: 1.2%DTUL @264psi - Unannealed, ASTM D648, Post Baked: 550°FDielectric Strength, ASTM D149, 60 Hz, Method A, wet: 335 V/milDielectric Strength, ASTM D149, 60 Hz, Method B, wet: 305 V/milCompressive Strength, ISO 604: 340 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

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