# NOVALAC RX®655

### Phenolic

## Vyncolit N.V.

#### Message:

RX®655 is a fiberglass and mineral reinforced phenolic molding compound, with excellent dimensional stability and good strength at elevated temperatures.

General Information					
Filler / Reinforcement	Glass \Mineral				
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	Particles				
Processing Method	Resin transfer molding				
	Compression molding				
	Injection molding				
Physical	Nominal Value	Unit	Test Method		
Density	2.10	g/cm³	ISO 1183		
Molding Shrinkage - Flow	0.060	%	ISO 294-4		
Water Absorption (23°C, 24 hr)	0.020	%	ISO 62		
Hardness	Nominal Value	Unit	Test Method		

Rockwell Hardness (E-Scale)	105		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Break, Compression			
Molded)	100	MPa	ISO 527-2
Flexural Modulus (Compression Molded)	27000	MPa	ISO 178
Flexural Stress	165	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	2.0	kJ/m²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa,			
Unannealed)	200	°C	ISO 75-2/A
CLTE - Flow	1.7E-5	cm/cm/°C	ASTM E831
Thermal Conductivity	0.94	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength (3.00 mm)	14	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	

Plastication: 50rpmInjection Time: 2 to 8 secHold Time: 1 to 5 sec/mmCure Time, 0.125 in: 5 to 12 sec/mmAll ISO properties listed were tested in accordance with ISO 3167.All ASTM properties listed were tested in accordance with ASTM D5948.The value listed as Thermal Conductivity, ASTM C177, was tested in accordance with ASTM C518.Powder Density, ISO 60: 0.95 g/cm<sup>3</sup>HDT A (1.80 MPa) Unannealed, ISO 75A, Post Baked: >282°CCompressive Strength, ISO 604: 410 MPa

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