NORYL GTX™ RESIN GTX951W

REGION ASIA

DESCRIPTION

NORYL GTX951W resin is a non-reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This injection moldable grade exhibits high heat resistance, excellent chemical resistance, high melt flow, and added mold release. NORYL GTX951W resin was designed for automotive under-the-hood applications such as power distribution boxes, relay boxes, and junction boxes.

GENERAL INFORMATION	
Features	Chemical Resistance, Hydrolytic Stability, Low Warpage, Low Shrinkage, Low Moisture Absorption, Low Specific Gravity, Dimensional stability, High stiffness/Strength, High temperature resistance, Impact resistant, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polyphenylene Ether + PA (PPE+Nylon)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Under the Hood
Electrical and Electronics	Electronic Components, Lighting
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20241016

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 50 mm/min	65	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	55	%	ASTM D638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	100	MPa	ASTM D790
Flexural Modulus, 2.6 mm/min, 100 mm span	2450	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched, 23°C	211	J/m	ASTM D256
Izod Impact, notched, -30°C	100	J/m	ASTM D256
THERMAL [1]			
HDT, 0.45 MPa, 6.4 mm, unannealed	195	°C	ASTM D648
CTE, -40°C to 40°C, flow	9.E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	8.5E-05	1/°C	ASTM E831
PHYSICAL [1]			
Specific Gravity	1.1	-	ASTM D792
Melt Flow Rate, 280°C/2.16 kgf	24	g/10 min	ASTM D1238
Melt Flow Rate, 280°C/5.0 kgf	65	g/10 min	ASTM D1238
ELECTRICAL [1]			
Dielectric Strength, in oil, 1.6 mm	22.4	kV/mm	ASTM D149
Dissipation Factor, 1 MHz	0.017	-	ASTM D150
FLAME CHARACTERISTICS [2]			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
UL Yellow Card Link	E207780-102315341	-	-
UL Recognized, 94HB Flame Class Rating	1.2	mm	UL 94
INJECTION MOLDING [3]			
Drying Temperature	100 – 120	°C	
Drying Time	2 – 3	Hrs	
Maximum Moisture Content	0.07	%	
Melt Temperature	280 – 310	°C	
Nozzle Temperature	270 – 300	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	80 – 120	°C	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

DISCLAIMER