

NORYL GTX™ RESIN GTX9400W

REGION AMERICAS

DESCRIPTION

High flow PPO+PA. Power distribution box applications.

TYPICAL PROPERTY VALUES

Revision 20180905

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	64	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	62	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	11	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	40	%	ASTM D 638
Tensile Modulus, 50 mm/min	1950	MPa	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	100	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	2350	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	69	MPa	ISO 527
Tensile Strain, break, 5 mm/min	39	%	ISO 527
Flexural Modulus, 2 mm/min	2700	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	849	J/m	ASTM D 4812
Izod Impact, unnotched, -30°C	768	J/m	ASTM D 4812
Izod Impact, notched, 23°C	256	J/m	ASTM D 256
Izod Impact, notched, -30°C	112	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	43	J	ASTM D 3763
Instrumented Impact Total Energy, -30°C	15	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	21	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	15	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	13	kJ/m ²	ISO 180/1A
THERMAL			
Vicat Softening Temp, Rate B/50	212	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	190	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	83	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	202	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	170	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.22E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.42E-04	1/°C	ASTM E 831
Vicat Softening Temp, Rate B/50	203	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	187	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	78	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.1	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	1.2 – 1.4	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	1.1 – 1.4	%	SABIC method

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Melt Flow Rate, 280°C/5.0 kgf	97	g/10 min	ASTM D 1238
INJECTION MOLDING			
Drying Temperature	95 – 105	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.07	%	
Minimum Moisture Content	0.02	%	
Melt Temperature	270 – 295	°C	
Nozzle Temperature	270 – 295	°C	
Front - Zone 3 Temperature	265 – 295	°C	
Middle - Zone 2 Temperature	260 – 295	°C	
Rear - Zone 1 Temperature	255 – 295	°C	
Mold Temperature	65 – 95	°C	
Back Pressure	0.3 – 1.4	MPa	
Screw Speed	20 – 100	rpm	
Shot to Cylinder Size	30 – 50	%	
Vent Depth	0.013 – 0.038	mm	

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