

# NORYL GTX™ RESIN GTX918WR

REGION ASIA

## DESCRIPTION

High flow PPE+PS+PA for under-the-hood and electrical applications. With mold release

## TYPICAL PROPERTY VALUES

Revision 20180906

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 50 mm/min	62	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	57	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	11.4	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	53	%	ASTM D 638
Tensile Modulus, 50 mm/min	810	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	98	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2360	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	60	MPa	ISO 527
Tensile Stress, break, 50 mm/min	55	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.5	%	ISO 527
Tensile Strain, break, 50 mm/min	30	%	ISO 527
Flexural Stress, yield, 2 mm/min	85	MPa	ISO 178
Flexural Modulus, 2 mm/min	2200	MPa	ISO 178
<b>IMPACT</b>			
Izod Impact, notched, 23°C	202	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	40	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	20	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	10	kJ/m <sup>2</sup>	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	20	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	10	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL</b>			
Vicat Softening Temp, Rate B/50	242	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	188	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	148	°C	ASTM D 648
CTE, -40°C to 40°C, flow	6.48E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.84E-05	1/°C	ASTM E 831
Thermal Conductivity	0.25	W/m·°C	ASTM C177
CTE, 23°C to 60°C, flow	8.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate A/50	245	°C	ISO 306
Vicat Softening Temp, Rate B/50	190	°C	ISO 306
Vicat Softening Temp, Rate B/120	195	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	185	°C	ISO 75/Be
<b>PHYSICAL</b>			
Specific Gravity	1.09	-	ASTM D 792

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Water Absorption, (23°C/sat)	4.2	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	1.3 – 1.6	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	1 – 1.3	%	SABIC method
Melt Flow Rate, 280°C/5.0 kgf	45	g/ 10 min	ASTM D 1238
Melt Volume Rate, MVR at 280°C/ 1.2 kg	5	cm <sup>3</sup> / 10 min	ISO 1133
<b>INJECTION MOLDING</b>			
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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