

NORYL GTXTM RESIN GTX902

REGION ASIA

DESCRIPTION

NORYL GTXTM 902 resin is a non-reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This injection moldable grade exhibits excellent chemical resistance and excellent paintability. NORYL GTX902 resin is an excellent candidate for automotive wheel cover applications.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	59	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	56	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	9	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	52	%	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	89	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	2240	MPa	ASTM D 790
Hardness, Rockwell R	118	-	ASTM D 785
Taber Abrasion, CS-17, 1 kg	19	mg/1000cy	ASTM D 1044
IMPACT			
Izod Impact, unnotched, 23°C	3204	J/m	ASTM D 4812
Izod Impact, unnotched, -30°C	3204	J/m	ASTM D 4812
Izod Impact, unnotched, -40°C	3204	J/m	ASTM D 4812
Izod Impact, notched, 23°C	272	J/m	ASTM D 256
Izod Impact, notched, -30°C	117	J/m	ASTM D 256
Izod Impact, notched, -40°C	53	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	46	J	ASTM D 3763
Instrumented Impact Energy @ peak, -30	36	J	ASTM D 3763
Instrumented Impact Energy @ peak, -40°C	19	J	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	232	°C	ASTM D 1525
HDT, 0.45 MPa, 6.4 mm, unannealed	155	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	127	°C	ASTM D 648
CTE, -20°C to 150°C, flow	9.E-05	1/°C	ASTM E 831
PHYSICAL			
Specific Gravity	1.08	-	ASTM D 792
Water Absorption, 24 hours	0.4	%	ASTM D 570
Water Absorption, equilibrium, 23C	3.6	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.9 – 1.2	%	SABIC method
Mold Shrink, flow, annealed 130C 1hr	1.1 – 1.5	%	ASTM D 955
Mold Shrinkage, xflow, 3.2 mm	0.8 – 1.1	%	SABIC method
INJECTION MOLDING			
Drying Temperature	95 – 105	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	8	hrs	

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Maximum Moisture Content	0.07	%	
Minimum Moisture Content	0.02	%	
Melt Temperature	275 – 300	°C	
Nozzle Temperature	275 – 300	°C	
Front - Zone 3 Temperature	270 – 300	°C	
Middle - Zone 2 Temperature	265 – 300	°C	
Rear - Zone 1 Temperature	260 – 300	°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	