

NORYL GTX™ RESIN GTX910

REGION ASIA

DESCRIPTION

NORYL GTX910 resin is a non-reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). NORYL GTX910 resin exhibits excellent chemical resistance and is an excellent candidate for automotive applications such as plastic/metal hybrid components, rail extensions, crash cans, wheel covers, and energy absorbers.

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

Automotive
Building and Construction

SUB INDUSTRY

Automotive Crash and Chassis, Automotive Exteriors
Building Component

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 50 mm/min	59	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	55	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	60	%	ASTM D638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	95	MPa	ASTM D790
Flexural Modulus, 2.6 mm/min, 100 mm span	2240	MPa	ASTM D790
Hardness, Rockwell R	116	-	ASTM D785
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	240	J/m	ASTM D256
Izod Impact, notched, -30°C	133	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	50	J	ASTM D3763
Instrumented Dart Impact Energy @ peak, -30°C	39	J	ASTM D3763
THERMAL ⁽¹⁾			
Vicat Softening Temp, Rate B/50	232	°C	ASTM D1525
HDT, 0.45 MPa, 6.4 mm, unannealed	193	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	143	°C	ASTM D648
CTE, -40°C to 95°C, flow	9.E-05	1/°C	ASTM E831
CTE, -40°C to 95°C, xflow	9.E-05	1/°C	ASTM E831
CTE, 60°C to 138°C, flow	1.26E-04	1/°C	ASTM E831
CTE, 60°C to 138°C, xflow	1.26E-04	1/°C	ASTM E831

© 2023 Copyright by SABIC. All rights reserved

CHEMISTRY THAT MATTERS™

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL ⁽¹⁾			
Specific Gravity	1.1	-	ASTM D792
Density	1.107	g/cm ³	ASTM D792
Moisture Absorption, (50% RH, Equilibrium)	1	%	ASTM D570
Moisture Absorption, (23°C/50% RH/24 hrs)	0.5	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm ⁽²⁾	1.1 – 1.3	%	SABIC method
Mold Shrink, flow, annealed 130C 1hr ⁽²⁾	1.6 – 1.8	%	ASTM D955
Mold Shrinkage, xflow, 3.2 mm ⁽²⁾	1 – 1.2	%	SABIC method
INJECTION MOLDING ⁽³⁾			
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	280 – 305	°C	
Nozzle Temperature	280 – 305	°C	
Front - Zone 3 Temperature	275 – 305	°C	
Middle - Zone 2 Temperature	270 – 305	°C	
Rear - Zone 1 Temperature	265 – 305	°C	
Mold Temperature	75 – 120	°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	

(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) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(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.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.