NORYL GTX™ RESIN GTX951A

DESCRIPTION

NORYL GTX951A 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 GTX951A 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, Aesthetics/Visual effects, 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

TYPICAL PROPERTY VALUES

Revision 20260430

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 50 mm/min	65	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	57	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	55	%	ASTM D638
Tensile Modulus, 50 mm/min	2250	MPa	ASTM D638
Flexural Stress, brk, 2.6 mm/min, 100 mm span	100	MPa	ASTM D790
Flexural Modulus, 2.6 mm/min, 100 mm span	2550	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	66	MPa	ISO 527
Tensile Strain, break, 50 mm/min	51	%	ISO 527
Flexural Stress, break, 2 mm/min	98	MPa	ISO 178
Flexural Modulus, 2 mm/min	2370	MPa	ISO 178
IMPACT [1]			
Izod impact, notched			
23°C	211	J/m	ASTM D256
-30°C	100	J/m	ASTM D256
63.5*12.7*3.2, 23°C	13	kJ/m²	ISO 180/4A
63.5*12.7*3.2, -30°C	8	kJ/m²	ISO 180/4A
Instrumented Dart Impact Energy @ peak, 23°C	48	J	ASTM D3763
Instrumented Dart Impact Energy @ peak, -30°C	32	J	ASTM D3763
Charpy Impact, notched, 23°C	21	kJ/m²	ISO 179/2C
Charpy Impact, notched, -20°C	10	kJ/m²	ISO 179/2C

© 2026 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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
-40°C to 40°C, xflow	8.5E-05	1/°C	ASTM E831
60°C to 138°C, flow	1.67E-04	1/°C	ASTM E831
60°C to 138°C, xflow	1.53E-04	1/°C	ASTM E831
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	181	°C	ISO 75/Be
PHYSICAL [1]			
Specific Gravity	1.1	-	ASTM D792
Mold Shrinkage, flow, 24 hrs [2]	1.4 – 1.7	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	1.2 – 1.5	%	ASTM D955
Melt Flow Rate			
280°C/2.16 kgf	24	g/10 min	ASTM D1238
280°C/5.0 kgf	65	g/10 min	ASTM D1238
Water Absorption, (23°C/24hrs)	1.99	%	ISO 62-1
Moisture Absorption, (23°C/50% RH/Equilibrium)	0.39	%	ISO 62-4
ELECTRICAL [1]			
Dielectric Strength, in oil, 1.6 mm	22.4	kV/mm	ASTM D149
Dissipation Factor			
1 MHz	0.017	-	ASTM D150
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	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	

(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.

© 2026 Copyright by SABIC. All rights reserved

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 NONINFRINGEMENT 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.

© 2026 Copyright by SABIC. All rights reserved