NORYL GTX™ RESIN GTX9811

DESCRIPTION

NORYL GTX9811 resin is a conductive, non-reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This injection moldable grade is optimized to allow for in- or on-line primer-less electrostatic and powder coat painting. NORYL GTX9811 resin exhibits high impact strength, excellent flow and good dimension stability. This product is targeted for automotive painted applications such as body panels, tank flaps and EV service flaps. See NORYL GTX9810 resin for improved dimension stability version.

GENERAL INFORMATION	
Features	Chemical Resistance, Electrically Conductive, 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	Conductive agent
Polymer Types	Polyphenylene Ether + PA (PPE+Nylon)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Exteriors

TYPICAL PROPERTY VALUES

Revision 20260429

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 50 mm/min	66	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	54	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	50	%	ASTM D638
Tensile Modulus, 5 mm/min	2650	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	94	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2350	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	66	MPa	ISO 527
Tensile Stress, break, 50 mm/min	59	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5	%	ISO 527
Tensile Strain, break, 50 mm/min	53	%	ISO 527
Tensile Modulus, 1 mm/min	2860	MPa	ISO 527
Flexural Strength, 2 mm/min	92	MPa	ISO 178
Flexural Modulus, 2 mm/min	2400	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	142	J/m	ASTM D256
Izod Impact, notched, -30°C	60	J/m	ASTM D256
Izod Impact, unnotched, 23°C	810	J/m	ASTM D4812
Izod Impact, unnotched, -30°C	830	J/m	ASTM D4812
Izod Impact, notched 80*10*4 +23°C	15	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	68	kJ/m²	ISO 180/1U

© 2026 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched 80*10*4 -30°C	82	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	17	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	51	kJ/m²	ISO 179/1eU
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	206	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	121	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	191	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	116	°C	ISO 75/Af
CTE, -40°C to 60°C, flow	7.7E-05	1/°C	ASTM E831
CTE, -40°C to 60°C, xflow	7.6E-05	1/°C	ASTM E831
CTE, 23°C to 60°C, flow	8.0E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.1E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	204	°C	ISO 306
Vicat Softening Temp, Rate B/120	207	°C	ISO 306
PHYSICAL [1]			
Specific Gravity	1.10	-	ASTM D792
Density	1.10	g/cm³	ISO 1183
Melt Flow Rate			
280°C/5.0 kgf	23	g/10 min	ASTM D1238
Melt Volume Rate			
280°C/5.0 kg	21	cm³/10 min	ISO 1133
Water Absorption, (23°C/24hrs)	0.51	%	ISO 62-1
Water Absorption, (23°C/saturated)	3.61	%	ISO 62-1
Moisture Absorption, (23°C/50% RH/24hrs)	0.12	%	ISO 62-4
Mold Shrinkage, flow [2]	1.5 – 1.7	%	SABIC method
Mold Shrinkage, xflow [2]	1.5 – 1.7	%	SABIC method
ELECTRICAL [1]			
Volume Resistivity	5.0E+02 – 1.0E+04	Ω.cm	SABIC method
INJECTION MOLDING [3]			
Drying Temperature	100 – 120	°C	
Drying Time	3 – 4	Hrs	
Maximum Moisture Content	0.07	%	
Melt Temperature	290 – 320	°C	
Nozzle Temperature	280 – 310	°C	
Front - Zone 3 Temperature	290 – 320	°C	
Middle - Zone 2 Temperature	280 – 300	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Mold Temperature	100 – 120	°C	
Back Pressure	0.4 – 1.0	MPa	
Screw Speed	20 – 100	rpm	
Shot to Cylinder Size	30 – 50	%	

© 2026 Copyright by SABIC. All rights reserved

(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.

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