

Noryl GTX* Resin GTX673

Americas: COMMERCIAL

Conductive Noryl GTX* resin designed for profile extrusion. This grade can be electrostatic or powder coat painted without the need for a primer. In addition, its high heat capability allows it to be painted on the same line as metal.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	65	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	63	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	3.8	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	6.1	%	ASTM D 638
Tensile Modulus, 5 mm/min	2420	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	100	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2520	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	66	MPa	ISO 527
Tensile Stress, break, 50 mm/min	64	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4	%	ISO 527
Tensile Strain, break, 50 mm/min	7.1	%	ISO 527
Tensile Modulus, 1 mm/min	2670	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	103	MPa	ISO 178
Flexural Modulus, 2 mm/min	2470	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	107	J/m	ASTM D 256
Izod Impact, notched, -30°C	58	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	5	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	10	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	6	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	12	kJ/m ²	ISO 179/1eA
THERMAL	Value	Unit	Standard
Vicat Softening Temp, Rate B/50	197	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	187	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.6E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.8E-05	1/°C	ASTM E 831
CTE, 23°C to 60°C, flow	8.1E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.6E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	Pass	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	197	°C	ISO 306
Vicat Softening Temp, Rate B/120	198	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	184	°C	ISO 75/Bf
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.1	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	1.3 - 1.5	%	SABIC Method
Melt Flow Rate, 300°C/5.0 kgf	7.8	g/10 min	ASTM D 1238
Density	1.1	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	4	%	ISO 62

Moisture Absorption (23°C / 50% RH)	0.4	%	ISO 62
Melt Volume Rate, MVR at 300°C/5.0 kg	7	cm ³ /10 min	ISO 1133
ELECTRICAL	Value	Unit	Standard
Volume Resistivity	1.E+03 - 1.E+04	Ohm-cm	SABIC Method

Source GMD, last updated:01/04/2006

Processing

Parameter	Value	Unit
Profile Extrusion		
Drying Temperature	105 - 110	°C
Drying Time	8	hrs
Drying Time (Cumulative)	24	hrs
Maximum Moisture Content	0.03	%
Melt Temperature	245 - 260	°C
Barrel - Zone 1 Temperature	245 - 260	°C
Barrel - Zone 2 Temperature	245 - 260	°C
Barrel - Zone 3 Temperature	245 - 260	°C
Barrel - Zone 4 Temperature	245 - 260	°C
Adapter Temperature	245 - 260	°C
Die Temperature	245 - 260	°C
Calibrator Temperature	35 - 75	°C
Water Bath Temperature	40 - 50	°C

Source GMD, last updated:01/04/2006

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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