

Noryl GTX* Resin GTX8410W

Americas: COMMERCIAL

High flow, 10% Glass Reinforced PPE+PA. Typically used in Automotive connectors.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Nominal Stress, yld, Type I, 5 mm/min	95	MPa	ASTM D 638
Nominal Stress, brk, Type I, 5 mm/min	94	MPa	ASTM D 638
Nominal Strain, yld, 5 mm/min	3.6	%	ASTM D 638
Nominal Strain, brk, 5 mm/min	3.8	%	ASTM D 638
Tensile Modulus, 5 mm/min	3590	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	152	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	4100	MPa	ASTM D 790
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	485	J/m	ASTM D 4812
Izod Impact, unnotched, -30°C	496	J/m	ASTM D 4812
Izod Impact, notched, 23°C	42	J/m	ASTM D 256
Izod Impact, notched, -30°C	37	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	7	J	ASTM D 3763
Instrumented Impact Total Energy, -30°C	5	J	ASTM D 3763
THERMAL	Value	Unit	Standard
Vicat Softening Temp, Rate B/50	238	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	252	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	210	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.38E+00	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.24E+01	1/°C	ASTM E 831
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.17	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.6 - 0.8	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm	0.7 - 0.9	%	SABIC Method
Melt Flow Rate, 280°C/5.0 kgf	36.5	g/10 min	ASTM D 1238

Source GMD, last updated:08/02/2004

Processing

- Do NOT mix NORYL GTX* resin with other grades of NORYL* resins.

Parameter	Value	Unit
Injection Molding		
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

Source GMD, last updated:08/02/2004

- Polystyrene and acrylic regrind are effective purging Materials. Use temperature range appropriate for particular purging resin.
- Regrind must also be dried. Maximum 25% regrind.
- Dry at recommended temperatures and times for optimum performance. Overdrying can cause loss of physical properties and/or create appearance defects. Do not exceed recommended basic drying time and temperature above or:
 - 4-8 hrs at 95°C (200°F), 10 hrs max
 - 6-12 hrs at 80°C (175°F), 16 hrs max
 - 8-16 hrs at 65°C (150°F), 24 hrs max
- Avoid melt temperature in excess of 300°C (575°F) and residence times over 6-8 minutes (may affect properties and/or appearance).
- Nozzle temperature controls assist in elimination of drool premature freeze-off.
- Shot sizes in excess of 50% barrel capacity can lead to difficulties in providing a consistent, homogenous plastic melt.

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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