SABIC Innovative Plastics™

Noryl GTX* Resin GTX905

Americas: COMMERCIAL

Automotive.

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	56	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	49	%	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	87	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	2200	MPa	ASTM D 790
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	267	J/m	ASTM D 256
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 6.4 mm, unannealed	172	°C	ASTM D 648
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.13	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	1.1 - 1.3	%	SABIC Method
Mold Shrink, flow, annealed 130C 1hr	1.4 - 1.7	%	ASTM D 955
Mold Shrinkage, xflow, 3.2 mm	0.9 - 1.2	%	SABIC Method
Melt Flow Rate, 280°C/5.0 kgf	8	g/10 min	ASTM D 1238

Source GMD, last updated:01/05/2000

Processing

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

Parameter		
Injection Molding	Value	Unit
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	295 - 315	°C
Nozzle Temperature	295 - 315	°C
Front - Zone 3 Temperature	290 - 315	°C
Middle - Zone 2 Temperature	280 - 315	°C
Rear - Zone 1 Temperature	275 - 315	°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

Source GMD, last updated:01/05/2000

• 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.