

Noryl* Resin BN9003

Americas: COMMERCIAL

Blow molding resin. Mostly automotive applications. Good ductility/low temperature impact. 245F (118C) HDT.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL			
	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	48	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	47	%	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	71	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	2030	MPa	ASTM D 790
IMPACT			
	Value	Unit	Standard
Izod Impact, notched, 23°C	437	J/m	ASTM D 256
Izod Impact, notched, -30°C	267	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	47	J	ASTM D 3763
THERMAL			
	Value	Unit	Standard
HDT, 0.45 MPa, 6.4 mm, unannealed	123	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	118	°C	ASTM D 648
CTE, -40°C to 95°C, flow	9.36E-05	1/°C	ASTM E 831
Vicat Softening Temp, Rate B/50	127	°C	ISO 306
PHYSICAL			
	Value	Unit	Standard
Specific Gravity	1.04	-	ASTM D 792
Water Absorption, 24 hours	0.2	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.8 - 1	%	SABIC Method

Source GMD, last updated:01/05/2000

Processing

- Dry for recommended time and temperature as overdrying can cause loss of physical properties and/or create appearance defects.
- CAUTION: Temperature settings are provided as a guide only. They should be adjusted and optimized for the specific machine and part.

Parameter	Value	Unit
Extrusion Blow Molding		
Drying Temperature	95	°C
Drying Time	2 - 4	hrs
Melt Temperature (Parison)	230 - 255	°C
Barrel - Zone 1 Temperature	220 - 255	°C
Barrel - Zone 2 Temperature	225 - 255	°C
Barrel - Zone 3 Temperature	230 - 255	°C
Barrel - Zone 4 Temperature	230 - 255	°C
Adapter - Zone 5 Temperature	230 - 255	°C
Head - Zone 6 - Top Temperature	230 - 255	°C
Head - Zone 7 - Bottom Temperature	230 - 255	°C
Mold Temperature	65 - 95	°C
Die Temperature	230 - 255	°C

Source GMD, last updated:01/05/2000

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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