

Noryl* Resin IGN320

Americas: COMMERCIAL

20% glass reinforced PPE + PS. High heat, high modulus automotive applications like ignition coils.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 5 mm/min	108	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	108	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.4	%	ASTM D 638
Tensile Modulus, 5 mm/min	6260	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	170	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	5720	MPa	ASTM D 790
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	512	J/m	ASTM D 4812
Izod Impact, notched, 23°C	101	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	16	J	ASTM D 3763
THERMAL	Value	Unit	Standard
Vicat Softening Temp, Rate B/50	175	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	164	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	158	°C	ASTM D 648
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.1 - 0.3	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm	0.2 - 0.4	%	SABIC Method
Melt Flow Rate, 300°C/5.0 kgf	12.8	g/10 min	ASTM D 1238

Source GMD, last updated:08/24/1999

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	110 - 120	°C
Drying Time	3 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	300 - 325	°C
Nozzle Temperature	300 - 325	°C
Front - Zone 3 Temperature	290 - 325	°C
Middle - Zone 2 Temperature	275 - 320	°C
Rear - Zone 1 Temperature	265 - 315	°C
Mold Temperature	80 - 110	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	20 - 100	rpm
Shot to Cylinder Size	30 - 70	%

Source GMD, last updated:08/24/1999

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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