



NORYL™ Resin IGN320
Americas: COMMERCIAL

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

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	1110	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	1110	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.4	%	ASTM D 638
Tensile Modulus, 5 mm/min	63800	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1730	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	58300	kgf/cm ²	ASTM D 790
IMPACT			
Izod Impact, unnotched, 23°C	52	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	10	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	168	cm-kgf	ASTM D 3763
THERMAL			
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			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.1 - 0.3	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.2 - 0.4	%	SABIC Method
Melt Flow Rate, 300°C/5.0 kgf	12.8	g/10 min	ASTM D 1238
ELECTRICAL			
Dielectric Strength, in oil, 1.6 mm	33.9	kV/mm	ASTM D 149



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PROCESSING PARAMETERS	TYPICAL 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	%