

NORYL™ RESIN IGN320

REGION AMERICAS

DESCRIPTION

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

TYPICAL PROPERTY VALUES

Revision 20180906

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
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			
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			
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	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
ELECTRICAL			
Dielectric Strength, in oil, 1.6 mm	33.9	kV/mm	ASTM D 149
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	%	



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