

Nylene® 51GR45HS

Polymeric Resources Corporation (PRC) - Polyamide 66

General Information

Product Description

45% Glass Reinforced, Heat Stabilized, Nylon 6/6

General

Material Status	<ul style="list-style-type: none"> Commercial: Active
Availability	<ul style="list-style-type: none"> North America
Filler / Reinforcement	<ul style="list-style-type: none"> Glass Fiber, 45% Filler by Weight
Additive	<ul style="list-style-type: none"> Heat Stabilizer
Features	<ul style="list-style-type: none"> Heat Stabilized
Appearance	<ul style="list-style-type: none"> Natural Color
Forms	<ul style="list-style-type: none"> Pellets
Processing Method	<ul style="list-style-type: none"> Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.49		ASTM D792
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 73°F)	28600	psi	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	1.50E+6	psi	ASTM D790
Flexural Strength	38000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	2.1	ft·lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in)	500	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	486	°F	ASTM D648
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.12 in)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	2.0E-3	%
Rear Temperature	500 to 540	°F
Middle Temperature	500 to 559	°F
Front Temperature	500 to 559	°F
Nozzle Temperature	500 to 559	°F
Processing (Melt) Temp	520 to 559	°F
Mold Temperature	81 to 160	°F
Back Pressure	50.0 to 100	psi

