

Nylene® 51 IM20

Polymeric Resources Corporation (PRC) - *Polyamide 66*

General Information

Product Description

SuperHigh Impact Resistance, Nylon 6/6

General

Material Status	• Commercial: Active
Availability	• North America
Features	• High Impact Resistance
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.07		ASTM D792
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 73°F)	7540	psi	ASTM D638
Tensile Elongation (Break)	> 10	%	ASTM D638
Flexural Modulus	250000	psi	ASTM D790
Flexural Strength	9570	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	18	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in)	421	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	160	°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	0.20	%
Rear Temperature	460 to 550	°F
Middle Temperature	480 to 550	°F
Front Temperature	480 to 550	°F
Nozzle Temperature	480 to 559	°F
Processing (Melt) Temp	500 to 550	°F
Mold Temperature	81 to 160	°F
Back Pressure	50.0 to 100	psi

