

Nylene® 51WF40 IM4

Polymeric Resources Corporation (PRC) - *Polyamide 66*

General Information

Product Description

40% Mineral Reinforced, Improved Impact Resistance, Nylon 6/6 Performance Compound

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Mineral, 40% Filler by Weight
Features	• Good Impact Resistance
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.48		ASTM D792
Molding Shrinkage - Flow	1.0E-3 to 5.0E-3	in/in	
Molding Shrinkage - Across Flow	3.0E-3 to 9.0E-3	in/in	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 73°F)	13800	psi	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	1.00E+6	psi	ASTM D790
Flexural Strength	14100	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	1.4	ft·lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in)	441	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	250	°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	460 to 520	°F
Middle Temperature	480 to 520	°F
Front Temperature	480 to 520	°F
Nozzle Temperature	480 to 559	°F
Processing (Melt) Temp	480 to 540	°F
Mold Temperature	81 to 160	°F
Back Pressure	50.0 to 100	psi

