

## Nylene® 51 IM12

Polymeric Resources Corporation (PRC) - Polyamide 66

### General Information

#### Product Description

High Impact Resistance, Heat Stabilized, Nylon 6/6

#### General

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

### Properties <sup>1</sup>

#### Physical

	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.08		ASTM D792

#### Mechanical

	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 73°F)	7400	psi	ASTM D638
Tensile Elongation (Break)	> 10	%	ASTM D638
Flexural Modulus	250000	psi	ASTM D790
Flexural Strength	8990	psi	ASTM D790

#### Impact

	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	6.2	ft·lb/in	ASTM D256

#### Thermal

	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in)	444	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	165	°F	ASTM D648

### 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

