

Clariant Nylon 6/6 PA-121

Polyamide 66
Clariant Corporation

Message:

Clariant Nylon 6/6 PA-121 is a polyamide 66 (nylon 66) material. This product is available in North America and is processed by injection molding. The main features of Clariant Nylon 6/6 PA-121 are:

- flame retardant/rated flame
- Impact modification
- Good toughness
- Impact resistance

Typical application areas include:

- Automotive Industry
- safety equipment
- Wire and cable
- House
- engineering/industrial accessories

General Information			
UL YellowCard	E103015-218191		
Additive	Impact modifier		
Features	Impact modification		
	Impact resistance, good		
	Good toughness		
Uses	Safety helmet		
	Conveyor accessories		
	Power/other tools		
	Fasteners		
	Application in Automobile Field		
	Shell		
	Medical/nursing supplies		
Agency Ratings	UL 94		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.09	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	1.5	%	ASTM D955
Water Absorption (24 hr)	1.2	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
Class m	72		ASTM D785
Class r	112		ASTM D785
Mechanical	Nominal Value	Unit	Test Method

Tensile Strength	55.2	MPa	ASTM D638
Tensile Elongation (Yield)	60	%	ASTM D638
Flexural Modulus	2070	MPa	ASTM D790
Flexural Strength	82.7	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	150	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	227	°C	ASTM D648
1.8 MPa, not annealed	71.1	°C	ASTM D648
Melting Temperature	254	°C	
CLTE - Flow	7.9E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength	18	kV/mm	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm)	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	79.4	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.20	%	
Rear Temperature	266 - 293	°C	
Middle Temperature	266 - 293	°C	
Front Temperature	266 - 293	°C	
Processing (Melt) Temp	266 - 288	°C	
Melt Temperature (Aim)	274	°C	
Mold Temperature	65.6 - 93.3	°C	
Injection Rate	Fast		
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	20 - 100	rpm	
Cushion	3.18 - 6.35	mm	
Injection instructions			

Injection Pressure: Use minimum pressure to achieve 95% fill during the boost inj. pressure phase.Hold Pressure: 30% to 75% of injection pressure.Mold Temp. Target: 180°F Screw Speed Target: 75 RPM

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