# Clariant Nylon 6/6 PA-123

### Polyamide 66

#### **Clariant Corporation**

#### Message:

Clariant Nylon 6/6 PA-123 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-123 are:

flame retardant/rated flame

Flame Retardant

Impact modification

high strength

Good processability

Typical application areas include:

**Automotive Industry** 

safety equipment

House

engineering/industrial accessories

military applications

General Information				
Additive	Impact modifier			
	heat stabilizer			
Features	Impact modification			
	Rigidity, high			
	High strength			
	Impact resistance, good			
	Workability, good			
	Good corrosion resistance			
	Good coloring			
	Good chemical resistance			
	Thermal Stability			
	Good toughness			
	Low or no water absorption			
	Flame retardancy			
Uses	Safety helmet			
	Conveyor accessories			
	Metal substitution			
	Fasteners			
	Military application			
	Sporting goods			
	Shell			
	Medical/nursing supplies			

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 (R-Scale)	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
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	НВ		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°FScrew Speed Target: 75 RPM

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#### Recommended distributors for this material

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