

Clariant Nylon 6 PA-212

Polyamide 6
Clariant Corporation

Message:

Clariant Nylon 6 PA-212 is a polyamide 6 (nylon 6) material. This product is available in North America and is processed by injection molding. The main features of the Clariant Nylon 6 PA-212 are:

- flame retardant/rated flame
- Low shrinkage
- high strength
- Good processability
- Hard

Typical application areas include:

- Electrical/electronic applications
- Wire and cable
- engineering/industrial accessories
- military applications
- Sporting goods

General Information			
Features	Nucleated		
	Good dimensional stability		
	Rigidity, high		
	High strength		
	Homopolymer		
	Workability, good		
	Fast molding cycle		
	Good corrosion resistance		
	Good coloring		
	Good chemical resistance		
	Good toughness		
	Low shrinkage		
Uses	Gear		
	Electrical components		
	Metal substitution		
	Military application		
	Connector		
	Sporting goods		
	Medical/nursing supplies		
Agency Ratings	UL 94		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method

Specific Gravity	1.14	g/cm ³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.90	%	ASTM D955
Water Absorption (24 hr)	1.6	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
Class m	85		ASTM D785
Class r	120		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	89.6	MPa	ASTM D638
Tensile Elongation (Yield)	15	%	ASTM D638
Flexural Modulus	3100	MPa	ASTM D790
Flexural Strength	117	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	43	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	73.9	°C	ASTM D648
Melting Temperature	216	°C	
CLTE - Flow	8.1E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+13	ohms·cm	ASTM D257
Dielectric Strength	17	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	249 - 274	°C	
Middle Temperature	249 - 274	°C	
Front Temperature	249 - 274	°C	
Processing (Melt) Temp	254 - 271	°C	
Melt Temperature (Aim)	266	°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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