

# Clariant Nylon 6 PA-211X032

Polyamide 6  
Clariant Corporation

Message:

Clariant Nylon 6 PA-211X032 is a polyamide 6 (nylon 6) material. This product is available in North America and is processed by extrusion or injection molding.

The main features of the Clariant Nylon 6 PA-211X032 are:

- flame retardant/rated flame
- Flame Retardant
- high strength
- Good processability
- Hard

Typical application areas include:

- Wire and cable
- military applications
- Hose
- Conveyor Belt
- Sporting goods

General Information	
Features	Good dimensional stability
	Rigidity, high
	Rigid, good
	High strength
	Homopolymer
	Workability, good
	Good corrosion resistance
	Good flexibility
	Good coloring
	Good chemical resistance
	Good toughness
	Flame retardancy
Uses	Conveyor
	Cable sheath
	Pipe fittings
	Metal substitution
	Military application
	Sporting goods
	Medical/nursing supplies
Agency Ratings	UL 94
Forms	Particle
Processing Method	Extrusion

## Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.11	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	1.4	%	ASTM D955
Water Absorption (24 hr)	2.2	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	60		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	54.5	MPa	ASTM D638
Tensile Elongation (Yield)	150	%	ASTM D638
Flexural Modulus	1650	MPa	ASTM D790
Flexural Strength	68.9	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	48	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	54.4	°C	ASTM D648
CLTE - Flow	1.1E-4	cm/cm/°C	ASTM D696
Flammability	Nominal Value		Test Method
Flame Rating	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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