Clariant Nylon 6 PA-211

Polyamide 6

Clariant Corporation

Message:

Clariant Nylon 6 PA-211 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-211 are:
flame retardant/rated flame
high strength
Good processability
Hard
Homopolymer
Typical application areas include:
engineering/industrial accessories
Electrical/electronic applications
Wire and cable
military applications
Sporting goods

General Information	
UL YellowCard	E103015-218180
Features	Good dimensional stability
	Rigidity, high
	High strength
	Homopolymer
	Workability, good
	Good corrosion resistance
	Good coloring
	Good chemical resistance
	Good wear resistance
	Good toughness
	General
Uses	Gear
	Electrical components
	Metal substitution
	Military application
	Sporting goods
	Cam
	Medical/nursing supplies
	Bearing
Agency Ratings	UL 94
Appearance	Available colors
	Natural color

Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.14	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	1.2	%	ASTM D955
Water Absorption (24 hr)	1.6	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			ASTM D785
Class m	80		ASTM D785
Class r	115		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	79.3	MPa	ASTM D638
Tensile Elongation (Yield)	75	%	ASTM D638
Flexural Modulus	2830	MPa	ASTM D790
Flexural Strength	110	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm)	53	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	177	°C	ASTM D648
1.8 MPa, not annealed	73.9	°C	ASTM D648
Melting Temperature	216	°C	
CLTE - Flow	8.3E-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
Arc Resistance (3.05 mm)	150	sec	ASTM D495
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.47 mm	HB		UL 94
3.05 mm	V-2		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°FScrew Speed Target: 75 RPM

Recommended distributors for this material

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