Clariant Nylon 6 PA-211N40

Polyamide 6

Clariant Corporation

Message:

Clariant Nylon 6 PA-211N40 is a polyamide 6 (nylon 6) material, which contains 15% glass fiber reinforced materials and 25% mineral fillers. This product is available in North America and is processed by injection molding.
The main features of the Clariant Nylon 6 PA-211N40 are:
flame retardant/rated flame
Flame Retardant
Low shrinkage
high strength
Good processability
Typical application areas include:
Automotive Industry
Wire and cable
marine applications
military applications
Sporting goods

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 15% filler by weight Mineral filler, 25% filler by weight
Features	Good dimensional stability Low warpage Rigidity, high High strength Workability, good Good corrosion resistance Good coloring Good chemical resistance Low shrinkage Flame retardancy
Uses	Ship application Metal substitution Military application Application in Automobile Field Sporting goods Medical/nursing supplies
Agency Ratings	UL 94
Forms	Particle
Processing Method	Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.49	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.60	%	ASTM D955
Water Absorption (24 hr)	0.90	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			ASTM D785
Class m	90		ASTM D785
Class r	120		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	141	MPa	ASTM D638
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	9310	MPa	ASTM D790
Flexural Strength	207	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			ASTM D648
0.45 MPa, not annealed	216	°C	ASTM D648
1.8 MPa, not annealed	204	°C	ASTM D648
CLTE - Flow	3.6E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength	19	kV/mm	ASTM D149
Flammability	**Nominal Value**	**Unit**	**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°FScrew Speed Target: 75 RPM

Recommended distributors for this material

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