Clariant Nylon 6/6 PA-111M40

Polyamide 66

Clariant Corporation

Message:

Clariant Nylon 6/6 PA-111M40 is a polyamide 66 (nylon 66) material, which contains 40% mineral fillers. This product is available in North America and is processed by injection molding.
The main features of Clariant Nylon 6/6 PA-111M40 are:
flame retardant/rated flame
Flame Retardant
high strength
Good processability
Hard
Typical application areas include:
Wire and cable
House
engineering/industrial accessories
marine applications
military applications

General Information	
Filler / Reinforcement	Mineral filler, 40% filler by weight
Features	Good dimensional stability Rigidity, high Rigid, good High strength Antistatic property Workability, good Good corrosion resistance Good coloring Good chemical resistance Good toughness Low or no water absorption Flame retardancy
Uses	Ship application Pipe components Metal substitution Military application Application in Automobile Field Sporting goods Shell Knob Medical/nursing supplies

Agency Ratings	UL 94		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.48	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.90	%	ASTM D955
Water Absorption (24 hr)	0.80	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			ASTM D785
Class m	92		ASTM D785
Class r	120		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	103	MPa	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	5860	MPa	ASTM D790
Flexural Strength	138	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			ASTM D648
0.45 MPa, not annealed	249	°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	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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