# Clariant Nylon 6/6 PA-113N40

Polyamide 66

Clariant Corporation

## Message:

Clariant Nylon 6/6 PA-113N40 is a polyamide 66 (nylon 66) 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 Clariant Nylon 6/6 PA-113N40 are:
flame retardant/rated flame
Low shrinkage
anti-warping
Good dimensional stability
Typical application areas include:
Wire and cable
marine applications
building applications
Automotive Industry

| General Information | | | |
|---|---|---|---|
| Filler / Reinforcement | Glass fiber reinforced material, 15% filler by weight<br>Mineral filler, 25% filler by weight | | |
| Features | Good dimensional stability<br>Low warpage<br>Low shrinkage | | |
| Uses | Ship application<br>Architectural application field<br>Application in Automobile Field | | |
| 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) | 0.35 | % | ASTM D955 |
| Water Absorption (24 hr) | 0.70 | % | ASTM D570 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Rockwell Hardness | | | ASTM D785 |
| Class m | 98 | | ASTM D785 |
| Class r | 120 | | ASTM D785 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength | 145 | MPa | ASTM D638 |
| Tensile Elongation (Break) | 4.0 | % | ASTM D638 |
| Flexural Modulus | 9650 | MPa | ASTM D790 |

| | | | |
|---|---|---|---|
| Flexural Strength | 214 | 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 | 254 | °C | ASTM D648 |
| 1.8 MPa, not annealed | 241 | °C | ASTM D648 |
| CLTE - Flow | 3.8E-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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## Recommended distributors for this material

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