

Nylene® 52

Polymeric Resources Corporation (PRC) - Polyamide 6

General Information

Product Description

Improved Viscosity, Nylon 6

General

| | |
|-------------------|--|
| Material Status | <ul style="list-style-type: none"> Commercial: Active |
| Availability | <ul style="list-style-type: none"> North America |
| Features | <ul style="list-style-type: none"> Medium Viscosity |
| Appearance | <ul style="list-style-type: none"> Natural Color |
| Forms | <ul style="list-style-type: none"> Pellets |
| Processing Method | <ul style="list-style-type: none"> Injection Molding |

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|---|------------------|--------------------|-------------|
| Density / Specific Gravity | 1.13 | | ASTM D792 |
| Molding Shrinkage - Flow | 1.0E-3 to 5.0E-3 | in/in | |
| Molding Shrinkage - Across Flow | 3.0E-3 to 9.0E-3 | in/in | |
| Viscosity Number | 135 | cm ³ /g | ISO 307 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength (Yield, 73°F) | 11000 | psi | ASTM D638 |
| Tensile Elongation (Break) | > 10 | % | ASTM D638 |
| Flexural Modulus | 420000 | psi | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (73°F, 0.125 in) | 0.81 | ft·lb/in | ASTM D256 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in) | 379 | °F | ASTM D648 |
| Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in) | 140 | °F | ASTM D648 |
| Peak Melting Temperature | 428 | °F | ASTM D3418 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating (0.12 in) | HB | | UL 94 |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature | 180 | °F |
| Drying Time | 2.0 to 4.0 | hr |
| Suggested Max Moisture | 2.0E-3 | % |
| Rear Temperature | 441 to 500 | °F |
| Middle Temperature | 441 to 500 | °F |
| Front Temperature | 450 to 520 | °F |
| Nozzle Temperature | 450 to 520 | °F |
| Processing (Melt) Temp | 450 to 520 | °F |
| Mold Temperature | 81 to 160 | °F |
| Back Pressure | 50.0 to 100 | psi |

Notes

¹ Typical properties: these are not to be construed as specifications.

