

Zytel® FR70M30V0 BK010

NYLON RESIN

DuPont Performance Polymers

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

30% Mineral Reinforced, Flame Retardant, Polyamide 66

General

| | |
|-------------------------------|--|
| Material Status | • Commercial: Active |
| Literature ¹ | • Processing - Injection Molding (English) • Typical Processing for DuPont Engineering Polymers (English) |
| UL Yellow Card ² | • E41938-234506 |
| Search for UL Yellow Card | • DuPont Performance Polymers • Zytel® |
| Availability | • Africa & Middle East • Europe • Asia Pacific • Latin America • North America |
| Filler / Reinforcement | • Mineral, 30% Filler by Weight |
| Additive | • Flame Retardant |
| Features | • Flame Retardant |
| RoHS Compliance | • Contact Manufacturer |
| Processing Method | • Injection Molding |
| Part Marking Code (ISO 11469) | • >PA66-MD30FR(17)< |
| Resin ID (ISO 1043) | • PA66-MD30FR(17) |

| Physical | Dry | Conditioned | Unit | Test Method |
|-------------------|------|-------------|-------------------|-------------|
| Density | 1.62 | -- | g/cm ³ | ISO 1183 |
| Molding Shrinkage | | | | ISO 294-4 |
| Across Flow | 0.90 | -- | % | |
| Flow | 0.80 | -- | % | |

| Mechanical | Dry | Conditioned | Unit | Test Method |
|------------------------|------|-------------|------|-------------|
| Tensile Modulus | 6200 | 4000 | MPa | ISO 527-2 |
| Tensile Stress (Break) | 65.0 | 45.0 | MPa | ISO 527-2 |
| Tensile Strain (Break) | 2.0 | 3.5 | % | ISO 527-2 |

| Impact | Dry | Conditioned | Unit | Test Method |
|---------------------------------------|-----|-------------|-------------------|-------------|
| Charpy Notched Impact Strength (23°C) | 2.5 | 2.5 | kJ/m ² | ISO 179/1eA |
| Charpy Unnotched Impact Strength | | | | ISO 179/1eU |
| -30°C | 20 | 18 | kJ/m ² | |
| 23°C | 20 | 25 | kJ/m ² | |
| Notched Izod Impact Strength (23°C) | 2.0 | 2.5 | kJ/m ² | ISO 180/1A |

| Thermal | Dry | Conditioned | Unit | Test Method |
|----------------------------------|-----|-------------|------|-------------|
| Heat Deflection Temperature | | | | ISO 75-2/A |
| 1.8 MPa, Unannealed | 145 | -- | °C | |
| Melting Temperature ⁴ | 263 | -- | °C | ISO 11357-3 |

| Flammability | Dry | Conditioned | Unit | Test Method |
|--------------------|----------------|-------------|------|----------------------|
| Flame Rating | | | | UL 94 |
| 0.75 mm | V-2 | -- | | IEC 60695-11-10, -20 |
| 1.5 mm | • V-0 • 5VA | -- | | |
| Oxygen Index | 40 | -- | % | ISO 4589-2 |
| FMVSS Flammability | DNI | -- | | FMVSS 302 |

| Fill Analysis | Dry | Conditioned | Unit | |
|----------------------|-----|-------------|------|--|
| Ejection Temperature | 210 | -- | °C | |

| Injection | Dry Unit |
|--------------------|----------|
| Drying Temperature | 80 °C |



| Injection | Dry Unit |
|--------------------------------|-----------------|
| Drying Time - Desiccant Dryer | 2.0 to 4.0 hr |
| Suggested Max Moisture | 0.20 % |
| Processing (Melt) Temp | 285 to 305 °C |
| Melt Temperature, Optimum | 295 °C |
| Mold Temperature | 50 to 90 °C |
| Mold Temperature, Optimum | 100 °C |
| Holding Pressure | 50.0 to 100 MPa |
| Drying Recommended | yes |
| Hold Pressure Time | 3.00 s/mm |
| Maximum Screw Tangential Speed | 200 mm/sec |

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 10°C/min



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Where to Buy

Supplier

DuPont Performance Polymers

Wilmington, DE USA

Telephone: 302-999-4592

Web: <http://plastics.dupont.com/>

Distributor

Biesterfeld Plastic GmbH

Biesterfeld Plastic GmbH is a Pan European distribution company. Contact Biesterfeld Plastic GmbH for availability of individual products by country.

Telephone: +49-40-32008-0

Web: <http://www.biesterfeld-plastic.com/>

Availability: Algeria, Austria, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Croatia, Cyprus, Czech Republic, Egypt, France, Germany, Greece, Hungary, Italy, Libyan Arab Jamahiriya, Luxembourg, Mauritania, Morocco, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Switzerland, Tunisia, Turkey

CCC Plastics

Telephone: 800-465-6917

Web: <http://www.cccplastics.com/>

Availability: Canada

Distrupol Ltd

Distrupol Ltd is a Pan European distribution company. Contact Distrupol Ltd for availability of individual products by country.

Telephone: 08452003040

Web: <http://www.distrupol.com/>

Availability: Denmark, Finland, Ireland, Norway, Sweden, United Kingdom

PolyOne Distribution

PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.

Telephone: 800-894-4266

Web: <http://polyonedistribution.com/>

Availability: Global

