

Starflam® PX06004

Ascend Performance Materials Operations LLC - Polyamide 6

General Information

Product Description

Starflam PX06004 is an unfilled, flame retardant PA6 for injection molded applications. The material is halogen free and red phosphorus free.

General

| | |
|-------------------|--|
| Material Status | • Commercial: Active |
| Availability | • Europe • North America |
| Additive | • Flame Retardant • Heat Stabilizer • Mold Release |
| Features | • Flame Retardant • Heat Stabilized |
| Agency Ratings | • ISO 1043 PA6 FR(30) |
| Appearance | • Natural Color |
| Forms | • Pellets |
| Processing Method | • Injection Molding |
| Resin ID | • PA6 FR |

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|-----------------------|-------------|
| Density | 1.16 | g/cm ³ | ISO 1183 |
| Water Absorption (Saturation, 73°F) | 9.0 | % | ISO 62 |
| Water Absorption (Equilibrium, 73°F, 50% RH) | 2.2 | % | ISO 62 |
| Outdoor Suitability | f2 | | UL 746C |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus (73°F) | 493000 | psi | ISO 527-1 |
| Tensile Stress (Yield, 73°F) | 11300 | psi | ISO 527-2 |
| Tensile Strain (Yield, 73°F) | 3.7 | % | ISO 527-2 |
| Tensile Strain (Break, 73°F) | 5.6 | % | ISO 527-2 |
| Flexural Modulus (73°F) | 450000 | psi | ISO 178 |
| Flexural Stress (73°F) | 15200 | psi | ISO 178 |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength | | | ISO 179/1eA |
| -22°F | 1.4 | ft·lb/in ² | |
| 73°F | 2.4 | ft·lb/in ² | |
| Charpy Unnotched Impact Strength | | | ISO 179/1eU |
| -22°F | 48 | ft·lb/in ² | |
| 73°F | 48 | ft·lb/in ² | |
| Notched Izod Impact Strength (73°F) | 2.4 | ft·lb/in ² | ISO 180/1A |
| Thermal | Nominal Value | Unit | Test Method |
| RTI Elec | | | UL 746B |
| 0.030 in | 248 | °F | |
| 0.06 in | 248 | °F | |
| 0.12 in | 248 | °F | |
| RTI Imp | | | UL 746B |
| 0.030 in | 149 | °F | |
| 0.06 in | 167 | °F | |
| 0.12 in | 167 | °F | |
| RTI Str | | | UL 746B |
| 0.030 in | 185 | °F | |
| 0.06 in | 185 | °F | |



| | | |
|---|----------------------|-------------|
| 0.12 in | 185 °F | |
| Electrical | Nominal Value | Unit |
| Comparative Tracking Index (0.118 in) | 600 | V |
| High Amp Arc Ignition (HAI) | | UL 746A |
| 0.030 in | PLC 0 | |
| 0.06 in | PLC 0 | |
| 0.12 in | PLC 0 | |
| Hot-wire Ignition (HWI) (0.030 in) | PLC 4 | UL 746A |
| Flammability | Nominal Value | Unit |
| Flame Rating | | UL 94 |
| 0.016 in | V-0 | |
| 0.030 in | V-0 | |
| 0.06 in | V-0 | |
| 0.12 in | V-0 | |
| Glow Wire Flammability Index (0.030 in) | 1760 | °F |
| Glow Wire Ignition Temperature (0.030 in) | 1340 | °F |

Processing Information

| | | |
|------------------------|----------------------|-------------|
| Injection | Nominal Value | Unit |
| Drying Temperature | 176 | °F |
| Drying Time | 4.0 | hr |
| Suggested Max Moisture | 0.20 | % |
| Rear Temperature | 464 to 482 | °F |
| Middle Temperature | 482 to 500 | °F |
| Front Temperature | 482 to 518 | °F |
| Processing (Melt) Temp | 482 to 518 | °F |
| Mold Temperature | 122 to 194 | °F |

Notes

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

