

Radilon® A ERV250K 333 BK

Radici Group High Performance Polymers - Polyamide 66

General Information

Product Description

PA66 25% glass fiber reinforced extrusion grade. Toughened and heat stabilized. Black colour.

Material especially developed for extrusion of thermal-breaker profiles for doors and windows. Also suitable for injection moulding.

General

| | |
|------------------------|--|
| Filler / Reinforcement | • Glass Fiber, 25% Filler by Weight |
| Additive | • Heat Stabilizer • Impact Modifier |
| Features | • Good Toughness • Heat Stabilized • Impact Modified |
| Agency Ratings | • EU 2011/65/EC |
| RoHS Compliance | • RoHS Compliant |
| Appearance | • Black |
| Processing Method | • Extrusion • Injection Molding |
| Resin ID (ISO 1043) | • PA66-GF25 |

Properties ¹

| Physical | Dry | Conditioned | Unit | Test Method |
|--------------------------------------|---------|-------------|-----------------------|----------------|
| Density | 1.31 | -- | g/cm ³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) | | | | ISO 1133 |
| 275°C/5.0 kg | 17 | -- | g/10 min | |
| Molding Shrinkage | | | | ISO 294-4 |
| Across Flow | 0.70 | -- | % | |
| Flow | 0.50 | -- | % | |
| Water Absorption | | | | ISO 62 |
| Saturation, 73°F, 0.0787 in | 7.4 | -- | % | |
| Water Absorption | | | | ISO 62 |
| Equilibrium, 73°F, 0.0787 in, 50% RH | 1.8 | -- | % | |
| Mechanical | Dry | Conditioned | Unit | Test Method |
| Tensile Modulus | 1.16E+6 | 667000 | psi | ISO 527-1/1A/1 |
| Tensile Stress (Break) | 21000 | 13100 | psi | ISO 527-2/1A/5 |
| Tensile Strain (Break) | 3.2 | 5.0 | % | ISO 527-2/1A/5 |
| Flexural Modulus ² | 1.00E+6 | 522000 | psi | ISO 178 |
| Flexural Stress ² | 31900 | 18100 | psi | ISO 178 |
| Impact | Dry | Conditioned | Unit | Test Method |
| Charpy Notched Impact Strength | | | | ISO 179/1eA |
| 73°F | 7.6 | 7.1 | ft-lb/in ² | |
| Charpy Unnotched Impact Strength | | | | ISO 179/1eU |
| 73°F | 36 | 43 | ft-lb/in ² | |
| Thermal | Dry | Conditioned | Unit | Test Method |
| Deflection Temperature Under Load | | | | ISO 75-2/Af |
| 264 psi, Unannealed | 401 | -- | °F | |
| Vicat Softening Temperature | 410 | -- | °F | ISO 306/B50 |
| Melting Temperature ³ | 500 | -- | °F | ISO 11357-3 |

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| Thermal | Dry | Conditioned | Unit | Test Method |
|--|------------|--------------------|-------------------------------|--------------------|
| CLTE - Flow (73 to 131°F) | 1.7E-5 | -- | in/in/°F | ISO 11359-2 |
| CLTE - Transverse (73 to 131°F) | 3.6E-5 | -- | in/in/°F | ISO 11359-2 |
| Thermal Conductivity ⁴ (73°F) | 2.1 | -- | Btu·in/hr/ft ² /°F | |
| Electrical | Dry | Conditioned | Unit | Test Method |
| Surface Resistivity (500 V) | 1.0E+12 | 1.0E+10 | ohms | IEC 62631-3-2 |
| Volume Resistivity (500 V) | 1.0E+13 | 1.0E+11 | ohms·m | IEC 62631-3-1 |
| Comparative Tracking Index Solution A | 550 | -- | V | IEC 60112 |
| Flammability | Dry | Conditioned | Unit | Test Method |
| Burning Rate (0.118 in) | < 0.39 | -- | in/min | ISO 3795 |
| Flame Rating (0.031 in) | HB | -- | | UL 94 |
| Glow Wire Flammability Index 0.08 in | 1290 | -- | °F | IEC 60695-2-12 |

Processing Information

| Injection | Dry | Unit |
|--------------------------------------|---------------|-------------|
| Drying Temperature - Desiccant Dryer | 176 | °F |
| Drying Time - Desiccant Dryer | 2.0 to 4.0 | hr |
| Dew Point - Desiccant Dryer | < -4 | °F |
| Suggested Max Moisture | 0.15 | % |
| Processing (Melt) Temp | 536 to 572 | °F |
| Mold Temperature | 176 to 212 | °F |
| Injection Rate | Moderate-Fast | |
| Extrusion | Dry | Unit |
| Melt Temperature | 518 to 536 | °F |

Notes

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

² 0.079 in/min

³ 10°C/min

⁴ inplane