

Radilon® A RV300HRG 3900 BK

 Radici Group High Performance Polymers - *Polyamide 66*
General Information
Product Description

PA66 30% glass fiber reinforced injection moulding grade. Heat stabilized. Superior performance in contact with glycol and aggressive coolants. Deep black colour.

Suitable for parts requiring high stiffness and good mechanical resistance. Particularly fit for thermostat housing, cooling circuit inlet/outlet pipes for automotive, radiator end tank.

General

| | |
|------------------------|---|
| Material Status | • Commercial: Active |
| Availability | • Africa & Middle East • Europe • North America • Asia Pacific • Latin America |
| Filler / Reinforcement | • Glass Fiber, 30% Filler by Weight |
| Additive | • Heat Stabilizer |
| Features | • Heat Stabilized • High Glycol Resistance • High Stiffness |
| Uses | • Automotive Applications |
| RoHS Compliance | • RoHS Compliant |
| Appearance | • Black |
| Processing Method | • Injection Molding |
| Resin ID (ISO 1043) | • PA66-GF30 |

Properties ¹

| Physical | Dry | Conditioned | Unit | Test Method |
|---|------------|--------------------|-----------------------|--------------------|
| Density | 1.37 | -- | g/cm ³ | ISO 1183 |
| Water Absorption (Saturation, 73°F, 0.0787 in) | 6.5 | -- | % | ISO 62 |
| Water Absorption (Equilibrium, 73°F, 0.0787 in, 50% RH) | 1.5 | -- | % | ISO 62 |
| Mechanical | Dry | Conditioned | Unit | Test Method |
| Tensile Modulus | 1.48E+6 | -- | psi | ISO 527-1/1A/1 |
| Tensile Stress (Break) | 29000 | -- | psi | ISO 527-2/1A/5 |
| Tensile Strain (Break) | 3.6 | -- | % | ISO 527-2/1A/5 |
| Flexural Modulus ² | 1.35E+6 | -- | psi | ISO 178 |
| Flexural Stress ² | 42800 | -- | psi | ISO 178 |
| Impact | Dry | Conditioned | Unit | Test Method |
| Charpy Notched Impact Strength (73°F) | 6.7 | -- | ft-lb/in ² | ISO 179/1eA |
| Charpy Unnotched Impact Strength (73°F) | 43 | -- | ft-lb/in ² | ISO 179/1eU |
| Thermal | Dry | Conditioned | Unit | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 464 | -- | °F | ISO 75-2/Af |
| Vicat Softening Temperature | 482 | -- | °F | ISO 306/B50 |
| Melting Temperature ³ | 500 | -- | °F | ISO 11357-3 |
| 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 |
| Flammability | Dry | Conditioned | Unit | Test Method |
| Burning Rate (0.118 in) | 0.0 | -- | 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 |

Notes

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

² 0.079 in/min

³ 10°C/min

