# Radilon® DT RV300RKC2 306 BK

## Radici Group High Performance Polymers - Polyamide 612

### General Information

**Product Description**

PA612 30% glass fiber reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts requiring high stiffness and good mechanical resistance in direct contact with drinking water and food. Exhibits good dimensional stability, imporved hydrolic stability and very good chemical resistance to disinfectants. Product developed for applications in civil and industrial water management as well as appliances.

| General | | | |
|---|---|---|---|
| Filler / Reinforcement | • Glass Fiber, 30% Filler by Weight | | |
| Additive | • Heat Stabilizer | | |
| Features | • Chemical Resistant<br>• Good Dimensional Stability | • Heat Stabilized<br>• High Stiffness | • Hydrolytically Stable |
| Uses | • Potable Water Applications | | |
| Agency Ratings | • EU 10/2011 | • EU 2011/65/EC | • FDA 21 CFR 177.1500 Chapter 1 |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Black | | |
| Processing Method | • Injection Molding | | |
| Resin ID (ISO 1043) | • PA612-GF30 | | |

### Properties [1]

| Physical | Dry | Conditioned | Unit | Test Method |
|---|---|---|---|---|
| Density | 1.29 | -- | g/cm³ | ISO 1183 |
| Molding Shrinkage | | | | ISO 294-4 |
| Across Flow | 0.70 | -- | % | |
| Flow | 0.30 | -- | % | |
| Water Absorption | | | | ISO 62 |
| Saturation, 73°F, 0.0787 in | 1.9 | -- | % | |
| Water Absorption | | | | ISO 62 |
| Equilibrium, 73°F, 0.0787 in, 50% RH | 0.70 | -- | % | |
| **Mechanical** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Tensile Modulus | 1.23E+6 | 1.15E+6 | psi | ISO 527-1/1A/1 |
| Tensile Stress (Break) | 22500 | 18100 | psi | ISO 527-2/1A/5 |
| Tensile Strain (Break) | 2.9 | 3.5 | % | ISO 527-2/1A/5 |
| Flexural Modulus [2] | 1.17E+6 | 885000 | psi | ISO 178 |
| Flexural Stress [2] | 33400 | 29000 | psi | ISO 178 |
| **Impact** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength | | | | ISO 179/1eA |
| 73°F | 5.2 | 6.2 | ft·lb/in² | |
| Charpy Unnotched Impact Strength | | | | ISO 179/1eU |
| 73°F | 31 | 33 | ft·lb/in² | |
| **Thermal** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Melting Temperature [3] | 414 | -- | °F | ISO 11357-3 |
| CLTE - Flow (73 to 131°F) | 1.1E-5 | -- | in/in/°F | ISO 11359-2 |

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| Thermal | Dry | Conditioned | Unit | Test Method |
|---|---|---|---|---|
| CLTE - Transverse (73 to 131°F) | 6.7E-5 | -- | in/in/°F | ISO 11359-2 |
| **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 |

### 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 | 0.10 | % |
| Processing (Melt) Temp | 500 to 554 | °F |
| Mold Temperature | 176 to 194 | °F |
| Injection Rate | Moderate | |

### Notes

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

[2] 0.079 in/min

[3] 10°C/min