



RADILON D RV300W 333 BK

PROVISIONAL

DESCRIPTION

PA610, 30% glass fibre reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts requiring good dimensional stability, high stiffness and mechanical resistance. Typical application: automotive fuel system components. This grade is partially renewably-sourced (64% of base polymer by weight).

ISO 1043: PA610-GF30

REGIONAL AVAILABILITY: North America, Europe, Asia Pacific, South and Central America, Near East/Africa

THE CHARACTERISTICS SHOWN HERE ARE PROVISIONAL AND REFLECT THE AVERAGE VALUES OF PROPERTIES MEASURED OVER A LIMITED NUMBER OF PRODUCTION CAMPAIGNS

MATERIAL HANDLING AND PROCESSING

The material is delivered in moisture-proof packaging ready for processing. Maximum recommended water content for best processing is 0.10%. Typical conditions with a desiccant drier: temperature 80 °C, dew point -20 °C or below, time 2-4 h or more. Special care must be taken to avoid moisture absorption and contamination with other polymers when adding regrind material. Colour variation and mechanical properties reduction may occur and should always be carefully monitored.

Injection Molding Processing Parameters

Melt Temperature
240 - 260°C

Mold Temperature
80 - 90°C

Injection Speed
high

PRODUCT SAFETY AND APPROVALS

For safety instruction please refer to Material Safety Data Sheet
ROHS compliant 2011/65/EU and following amendments



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| PROPERTY | STANDARD | UNIT | VALUE | | |
|--|--------------------------|-------------------|-------------------|-----------|------|
| | | | DAM* | Cond** | |
| PHYSICAL PROPERTIES | | | | | |
| Density | ISO 1183 | kg/m ³ | 1300 | | |
| Moulding shrinkage - Parallel / Normal | 280/80/60 ^[1] | ISO 294-4 | % | 0.3 / 0.7 | |
| Water Absorption, immersion at 23°C | 2mm | ISO 62 | % | 2.2 | |
| Moisture Absorption 23°C - 50%RH | 2mm | ISO 62 | % | 1 | |
| MECHANICAL PROPERTIES | | | | | |
| Tensile Modulus | 1mm/min | ISO 527-2/1A | MPa | 8200 | 7200 |
| Stress at Break | 5mm/min | ISO 527-2/1A | MPa | 145 | 120 |
| Strain at Break | 5mm/min | ISO 527-2/1A | % | 4.1 | 3.9 |
| Flexural Modulus | 2mm/min | ISO 178 | MPa | 7100 | 5500 |
| Flexural Strength | 2mm/min | ISO 178 | MPa | 220 | 175 |
| Charpy Impact Strength | +23°C | ISO 179/1eU | kJ/m ² | 90 | 95 |
| Charpy Impact Strength | -30°C | ISO 179/1eU | kJ/m ² | 85 | |
| Charpy Notched Impact Strength | +23°C | ISO 179/1eA | kJ/m ² | 11 | 13.5 |
| Charpy Notched Impact Strength | -30°C | ISO 179/1eA | kJ/m ² | 9 | |
| THERMAL PROPERTIES | | | | | |
| Melting Temperature | 10°C/min | ISO 11357-1/-3 | °C | 220 | |
| Heat Deflection Temperature | 1.80 MPa | ISO 75/2Af | °C | 200 | |
| Heat Deflection Temperature | 0.45 MPa | ISO 75/2Bf | °C | 215 | |
| Coeff. of Linear Therm. Expansion | parallel, 23°C-55°C | ISO 11359-1/-2 | E-6/K | 30 | |
| Coeff. of Linear Therm. Expansion | normal, 23°C-55°C | ISO 11359-1/-2 | E-6/K | 65 | |
| FLAMMABILITY PROPERTIES | | | | | |
| Flammability | 0.8mm | UL 94 | class | HB | |
| ELECTRICAL PROPERTIES | | | | | |
| Volume Resistivity | 500V | IEC 62631-3-1 | Ohm*m | 1E13 | 1E11 |
| Surface Resistivity | 500V | IEC 62631-3-2 | Ohm | 1E12 | 1E10 |

*: DAM = Dry As Moulded state according to ISO 16396-2, **: Cond = Conditioned state similar to ISO 1110

1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]

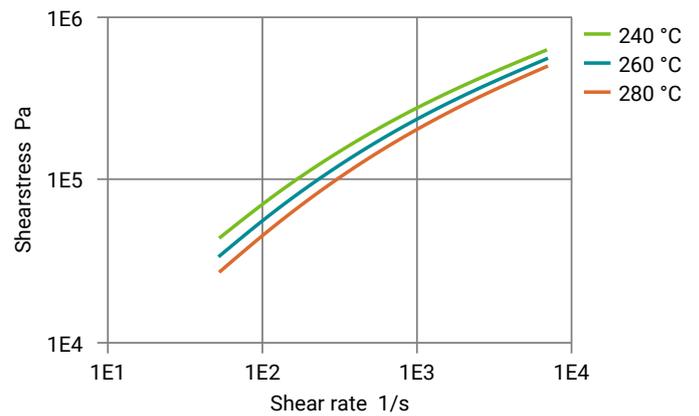
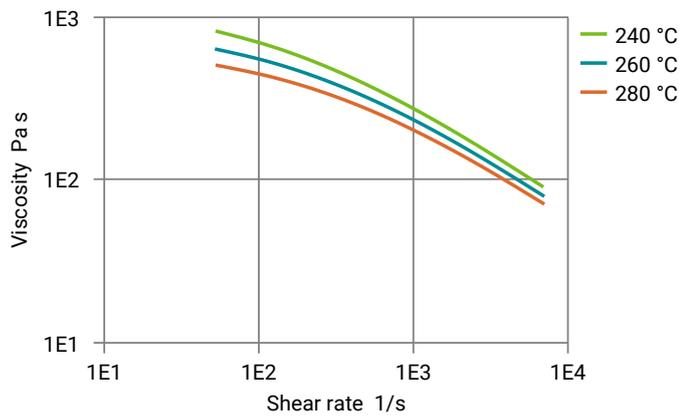


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DIAGRAMS

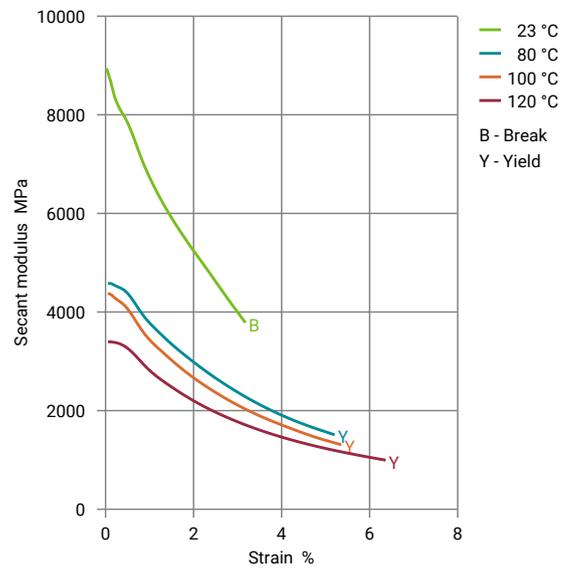
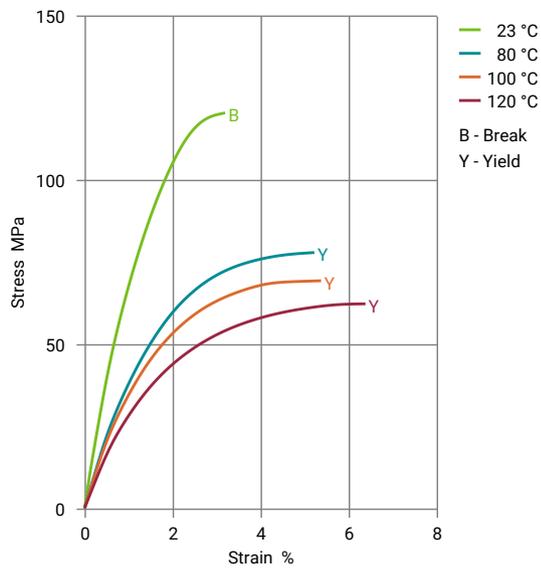
Viscosity-shear rate

Shearstress-shear rate



Stress-strain (cond.)

Secant modulus-strain (cond.)



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Specific volume-temperature (pvT)

