

RADILON D 40EP25ZW 333 BK

DESCRIPTION

PA610 flexible, high viscosity extrusion grade. Toughened and plasticized. Heat stabilized. Black colour.

Suitable for extrusion of pipes, profiles and cable jackets. Good impact resistance also at low temperatures. This grade is partially renewably-sourced (64% of base polymer by weight).

ISO 1043: PA610-HI-P

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

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
230 - 260°C

Mold Temperature
70 - 80°C

Injection Speed
medium

Extrusion Temperature
240 - 290°C

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 | | | 1040 | |
| Moulding shrinkage - Parallel / Normal | 270/60/60 ^[1] | ISO 1183 | kg/m ³ | |
| Water Absorption, immersion at 23°C | 2mm | ISO 294-4 | % | 1.6 / 1.6 |
| Moisture Absorption 23°C - 50%RH | 2mm | ISO 62 | % | 2 |
| | | ISO 62 | % | 0.9 |
| MECHANICAL PROPERTIES | | | | |
| Tensile Modulus | 1mm/min | ISO 527-2/1A | MPa | 500 |
| Nominal Strain at Break | 50mm/min | ISO 527-2/1A | % | >100 |
| Stress at 50% Strain | | ISO 527-2/1A | MPa | 28 |
| Flexural Modulus | 2mm/min | ISO 178 | MPa | 480 |
| Flexural Strength | 2mm/min | ISO 178 | MPa | 20 |
| Charpy Notched Impact Strength | +23°C | ISO 179/1eA | kJ/m ² | 110 |
| THERMAL PROPERTIES | | | | |
| Melting Temperature | 10°C/min | ISO 11357-1/-3 | °C | 217 |
| Heat Deflection Temperature | 1.80 MPa | ISO 75/2Af | °C | 50 |
| Heat Deflection Temperature | 0.45 MPa | ISO 75/2Bf | °C | 100 |
| ELECTRICAL PROPERTIES | | | | |
| Volume Resistivity | 500V | IEC 62631-3-1 | Ohm*m | 1E13 |
| Surface Resistivity | 500V | IEC 62631-3-2 | Ohm | 1E12 |

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

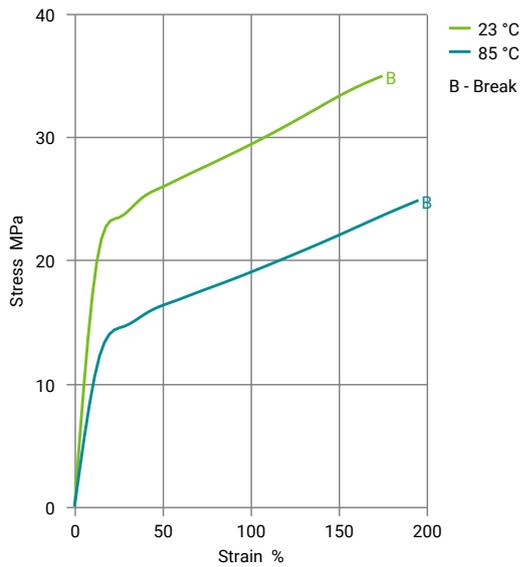
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



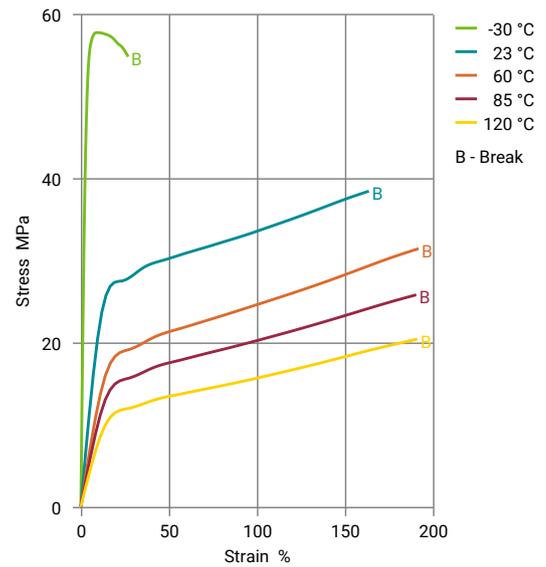
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DIAGRAMS

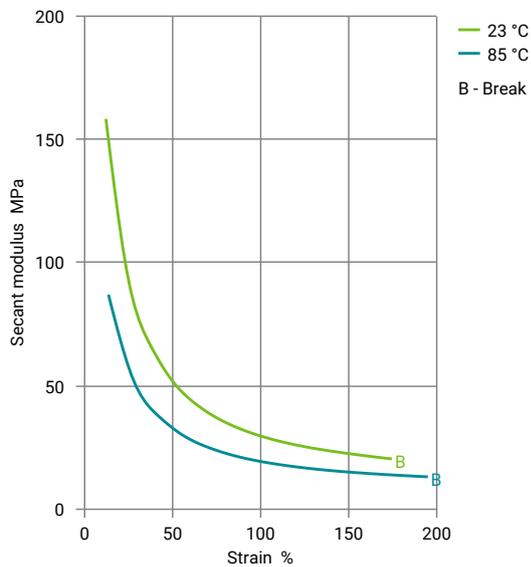
Stress-strain (cond.)



Stress-strain (dry)



Secant modulus-strain (cond.)



Secant modulus-strain (dry)

