

PRODUCT INFORMATION

RADILON D RV400RG 3900 BK

PRELIMINARY

DESCRIPTION

PA610 40% glass fiber reinforced injection moulding grade. Heat stabilized, very high hydrolysis resistance. Black colour.

Suitable for parts requiring high stiffness, good mechanical resistance. Excellent retention of properties in contact with automotive cooling circuit liquids. This grade is partially renewably-sourced (60% of base polymer by weight).

ISO 1043: PA610-T GF40

Formerly known as RADILON D X16315 BK.

THE CHARACTERISTICS SHOWN HERE MUST BE CONSIDERED PRELIMINARY AND INDICATIVE FOR A PRODUCT AT DEVELOPMENTAL STAGE

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
240 - 280°C

Mold Temperature
80 - 90°C

Injection Speed
medium-High

PRODUCT SAFETY AND APPROVALS

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

TECHNICAL DATA SHEET

RADILON D RV400RG 3900 BK

PROPERTY	STANDARD	UNIT	VALUE	DAM*	Cond**
PHYSICAL PROPERTIES					
Density		kg/m ³	1410		
Moulding shrinkage - Parallel / Normal	280 / 80 / 60 ^[1]	%	0.3 / 0.6		
Water Absorption, immersion at 23°C	2mm	%	1.9		
Moisture Absorption 23°C - 50%RH	2mm	%	0.85		
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	MPa	11500		9800
Stress at Break	5mm/min	MPa	185		150
Strain at Break	5mm/min	%	4.9		6.9
Flexural Modulus	2mm/min	MPa	10100		
Flexural Strength	2mm/min	MPa	280		
Charpy Impact Strength	+23°C	kJ/m ²	115		
Charpy Impact Strength	-30°C	kJ/m ²	125		
Charpy Notched Impact Strength	+23°C	kJ/m ²	18		
Charpy Notched Impact Strength	-30°C	kJ/m ²	20		
THERMAL PROPERTIES					
Melting Temperature	10°C/min	°C	217		
Heat Deflection Temperature	1.80 MPa	°C	205		
Coeff. of Linear Therm. Expansion	normal, 23°C-55°C	E-6/K	18		
Coeff. of linear therm. expansion	parallel, {\$0}	E-6/K	100		
FLAMMABILITY PROPERTIES					
Flammability	0.8mm	UL 94	class		HB
ELECTRICAL PROPERTIES					
Volume Resistivity	500V	IEC 60093	Ohm*m	1E13	1E11
Surface Resistivity	500V	IEC 60093	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]