

## PRODUCT INFORMATION

# RADILON A RV350HHR 3800 BK

### DESCRIPTION

PA66 35% glass fiber reinforced injection molding grade with enhanced thermal resistance in contact with hot air. High improvement of mechanical properties retention versus standard polyamide 66 after heat ageing.

Alternative to PPA and PA4.6 grades in automotive applications like turbo air ducts, CAC tanks, EGR housing. Continuous use temperature until 210 °C in air.

ISO 1043: PA66-T GF35

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. Avoid excessive shear rates and high thermal stresses for better processing. 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  
280 - 300°C

Mold Temperature  
80 - 100°C

Injection Speed  
medium-high

### PRODUCT SAFETY AND APPROVALS

For safety instruction please refer to Material Safety Data Sheet

Underwriters Laboratories Inc. certified material. File number: E116324 [www.ul.com](http://www.ul.com)

ROHS compliant 2011/65/UE and following amendments

## TECHNICAL DATA SHEET

# RADILON A RV350HHR 3800 BK

PROPERTY	STANDARD	UNIT	VALUE	DAM*	Cond**
<b>PHYSICAL PROPERTIES</b>					
Density				1390	
Moulding shrinkage - Parallel / Normal	300 / 90 / 60 <sup>[1]</sup>	ISO 1183	kg/m <sup>3</sup>	0.4 / 0.9	
Water Absorption, immersion at 23°C	2mm	ISO 294-4	%	6.3	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.5	
<b>MECHANICAL PROPERTIES</b>					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	10500	7600
Stress at Break	5mm/min	ISO 527-2/1A	MPa	170	120
Strain at Break	5mm/min	ISO 527-2/1A	%	3.5	6.5
Flexural Modulus	2mm/min	ISO 178	MPa	9400	7000
Flexural Strength	2mm/min	ISO 178	MPa	265	190
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	95	90
Charpy Impact Strength	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	95	
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	16	20
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	14	
<b>THERMAL PROPERTIES</b>					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	260	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	240	
Ball pressure hardness		IEC 60695-10-2	°C	≥ 160	
<b>FLAMMABILITY PROPERTIES</b>					
Flammability	-mm	UL 94	class	HB	
Glow Wire Flammability Index	2mm	IEC 60695-2-1/2	°C	700	
<b>ELECTRICAL PROPERTIES</b>					
Volume Resistivity	500V	IEC 60093	Ohm*m	1E13	1E11
Surface Resistivity	500V	IEC 60093	Ohm	1E12	1E10
Comparative Tracking Index	Sol.A	IEC 60112	-	350	

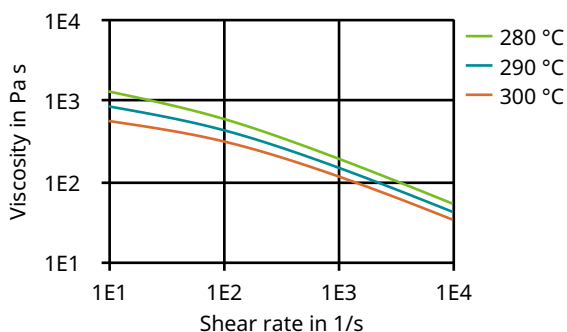
\*: DAM = Dry As Moulded state according to ISO 16396-2 \*\*: Cond = Conditioned state similar to ISO 1110 1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]

## TECHNICAL DATA SHEET

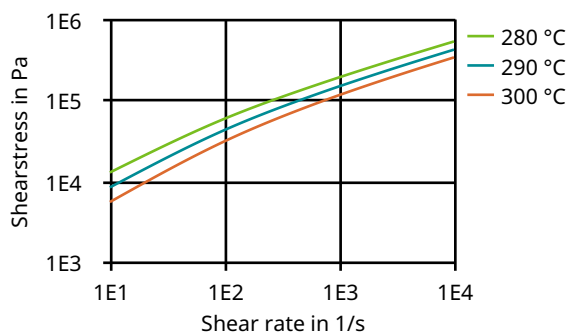
# RADILON A RV350HHR 3800 BK

## Diagrams

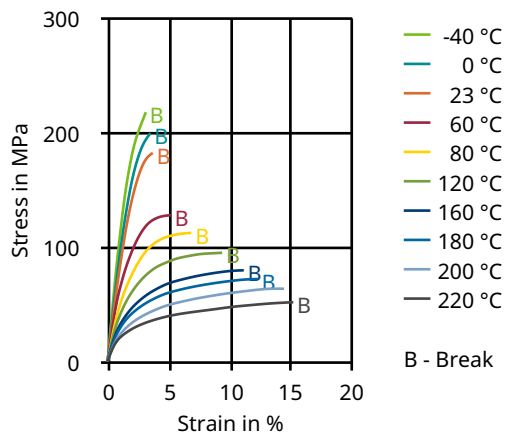
## Viscosity-shear rate



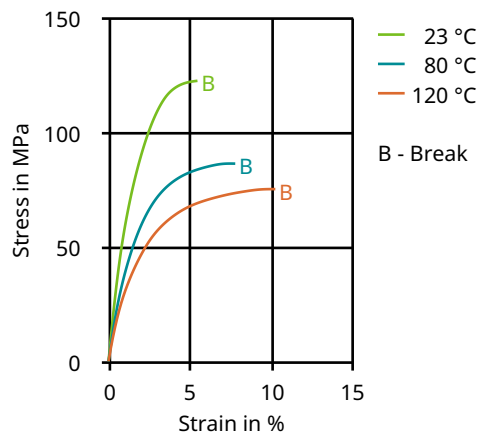
## Shearstress-shear rate



## Stress-strain (dry)



## Stress-strain (cond.)



TECHNICAL DATA SHEET

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Secant modulus-strain (dry)

Secant modulus-strain (cond.)

