

# RADILON D HS 105 M NT

## DESCRIPTION

PA610 injection moulding grade. Nucleated and lubricated, fast cycling. Natural colour.

General purpose grade, suitable for parts requiring high productivity. This grade is partially renewably-sourced (64% of base polymer by weight).

ISO 1043: PA610

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

## PRODUCT SAFETY AND APPROVALS

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



# RADILON D HS 105 M NT

PROPERTY	STANDARD	UNIT	VALUE		
			DAM*	Cond**	
<b>PHYSICAL PROPERTIES</b>					
Density	ISO 1183	kg/m <sup>3</sup>	1080		
Moulding shrinkage - Parallel / Normal	270/60/60 <sup>[1]</sup>	ISO 294-4	%	1.0 / 1.2	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	3.2	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.4	
Viscosity Index (Sulfuric Acid)	ISO 307	ml/g		146	
<b>MECHANICAL PROPERTIES</b>					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	2500	1300
Stress at Yield	50mm/min	ISO 527-2/1A	MPa	70	50
Yield Strain	50mm/min	ISO 527-2/1A	%	5	15
Nominal Strain at Break	50mm/min	ISO 527-2/1A	%	40	>100
Flexural Modulus	2mm/min	ISO 178	MPa	2200	
Flexural Strength	2mm/min	ISO 178	MPa	90	
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	N	
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	6	9
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	4	
<b>THERMAL PROPERTIES</b>					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	217	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	55	
Vicat Softening Temperature	50°C/h 50N	ISO 306	°C	185	
<b>FLAMMABILITY PROPERTIES</b>					
Flammability	0.8mm	UL 94	class	V-2	
Glow Wire Flammability Index	2mm	IEC 60695-2-12	°C	750	
Glow Wire Ignition Temperature	2mm	IEC 60695-2-13	°C	775	
<b>ELECTRICAL PROPERTIES</b>					
Volume Resistivity	500V	IEC 62631-3-1	Ohm*m	1E13	1E11
Surface Resistivity	500V	IEC 62631-3-2	Ohm	1E12	1E10
Comparative Tracking Index	Sol.A	IEC 60112	V	600	

\*: DAM = Dry As Moulded state according to ISO 16396-2, \*\*: Cond = Conditioned state similar to ISO 11110

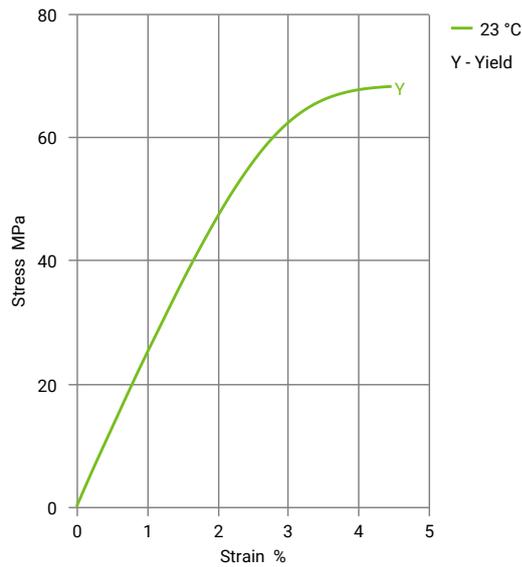
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



# RADILON D HS 105 M NT

## DIAGRAMS

### Stress-strain (dry)



### Secant modulus-strain (dry)

