

Radici Radilon A HSX 100 NT

PA66 injection molding grade. Toughened. Natural color. Suitable for parts requiring improved impact resistance.
 Information provided by Radici Group.

Physical Properties	Metric	English	Comments
Density	1.12 g/cc	0.0405 lb/in ³	DAM; ISO 1183
Water Absorption	7.6 % @Thickness 2.00 mm, Temperature 23.0 °C	7.6 % @Thickness 0.0787 in, Temperature 73.4 °F	Immersion; ISO 62
Moisture Absorption	2.00 % @Thickness 2.00 mm, Temperature 23.0 °C	2.00 % @Thickness 0.0787 in, Temperature 73.4 °F	50% RH; ISO 62
Linear Mold Shrinkage, Flow	0.015 cm/cm	0.015 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.014 cm/cm	0.014 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	45.0 MPa	6530 psi	50mm/min. Conditioned; ISO 527-2/1A
	75.0 MPa	10900 psi	50mm/min. DAM; ISO 527-2/1A
Elongation at Break	0.00 %	0.00 %	Nominal, 50 mm / min. Conditioned; ISO 527-2/1A
	25 %	25 %	Nominal, 50 mm / min. DAM; ISO 527-2/1A
Elongation at Yield	5.5 %	5.5 %	50 mm / min. DAM; ISO 527-2/1A
	25 %	25 %	50 mm / min. Conditioned; ISO 527-2/1A
Tensile Modulus	1.50 GPa	218 ksi	1mm / min. Conditioned; ISO 527-2/1A
	2.60 GPa	377 ksi	1mm / min. DAM; ISO 527-2/1A
Flexural Strength	95.0 MPa	13800 psi	2mm / min. DAM; ISO 178
Flexural Modulus	2.50 GPa	363 ksi	2mm / min. DAM; ISO 178
Charpy Impact Unnotched	NB	NB	DAM; ISO 179/1e/U
Charpy Impact, Notched	1.10 J/cm ² @Temperature -30.0 °C	5.23 ft-lb/in ² @Temperature -22.0 °F	DAM; ISO 179/1e/A
	1.50 J/cm ² @Temperature 23.0 °C	7.14 ft-lb/in ² @Temperature 73.4 °F	DAM; ISO 179/1e/A

	3.00 J/cm ² @Temperature 23.0 °C	14.3 ft-lb/in ² @Temperature 73.4 °F	Conditioned; ISO 179/1e/A
Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+11 ohm-cm	1.00e+11 ohm-cm	Conditioned. 500V; IEC 60093
	1.00e+13 ohm-cm	1.00e+13 ohm-cm	DAM; 500V.; IEC 60093
Surface Resistance	1.00e+10 ohm	1.00e+10 ohm	Conditioned. 500V; IEC 60093
	1.00e+12 ohm	1.00e+12 ohm	DAM; 500V.; IEC 60093
Comparative Tracking Index	600 V	600 V	DAM. Sol.A; IEC 60112
Thermal Properties	Metric	English	Comments
Melting Point	260 °C	500 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	190 °C	374 °F	ISO 75/2Bf
Deflection Temperature at 1.8 MPa (264 psi)	60.0 °C	140 °F	ISO 75/2Af
Vicat Softening Point	225 °C @Load 5.10 kg	437 °F @Load 11.2 lb	50°C/h; ISO 306
Flammability, UL94	HB @Thickness 0.800 mm	HB @Thickness 0.0315 in	
Flame Spread	<= 30.0 mm/min @Thickness 3.00 mm	<= 1.18 in/min @Thickness 0.118 in	Automotive Interior; ISO 3795
Glow Wire Flammability Index	650 °C @Thickness 2.00 mm	1200 °F @Thickness 0.0787 in	IEC 60695-2-1/2
Processing Properties	Metric	English	Comments
Melt Temperature	270 - 290 °C	518 - 554 °F	Injection Molding
Mold Temperature	70.0 - 90.0 °C	158 - 194 °F	
Descriptive Properties			
Injection Molding Injection Speed	Medium		