

Radilon® S CP300K 100 NT

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 30% mineral filled injection moulding grade. Heat stabilized. Natural colour.

Suitable for parts requiring good dimensional stability and mechanical properties, reduced shrinkage and low warpage.

General

Filler / Reinforcement	<ul style="list-style-type: none"> Mineral, 30% Filler by Weight
Additive	<ul style="list-style-type: none"> Heat Stabilizer
Features	<ul style="list-style-type: none"> Good Dimensional Stability Heat Stabilized Low Shrinkage Low Warpage
Agency Ratings	<ul style="list-style-type: none"> EU 2011/65/EC
RoHS Compliance	<ul style="list-style-type: none"> RoHS Compliant
Appearance	<ul style="list-style-type: none"> Natural Color
Processing Method	<ul style="list-style-type: none"> Injection Molding
Resin ID (ISO 1043)	<ul style="list-style-type: none"> PA6-MX30

Properties¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.35	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.90	--	%	
Flow	0.90	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	7.3	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	2.1	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	711000	341000	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	11600	7980	psi	ISO 527-2/1A/50
Tensile Strain (Break)	20	35	%	ISO 527-2/1A/5
Flexural Modulus ²	696000	--	psi	ISO 178
Flexural Stress ²	19600	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
73°F	2.9	3.1	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Bf
66 psi, Unannealed	374	--	°F	
Deflection Temperature Under Load				ISO 75-2/ Af
264 psi, Unannealed	194	--	°F	
Vicat Softening Temperature	401	--	°F	ISO 306/B50
Melting Temperature ³	428	--	°F	ISO 11357-3

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Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity (500 V)	1.0E+12	1.0E+10	ohms	IEC 62631-3-2
Volume Resistivity (500 V)	1.0E+13	1.0E+11	ohms·m	IEC 62631-3-1
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate (0.118 in)	0.0	--	in/min	ISO 3795
Flame Rating (0.031 in)	HB	--		UL 94
Glow Wire Flammability Index 0.08 in	1290	--	°F	IEC 60695-2-12

Processing Information

Injection	Dry Unit
Drying Temperature - Desiccant Dryer	176 °F
Drying Time - Desiccant Dryer	2.0 to 4.0 hr
Dew Point - Desiccant Dryer	< -4 °F
Suggested Max Moisture	0.15 %
Processing (Melt) Temp	464 to 536 °F
Mold Temperature	176 to 194 °F
Injection Rate	Moderate-Fast

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.079 in/min

³ 10°C/min