

Radilon® S HS 105 M NT

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 injection moulding grade. Nucleated, fast cycling. Natural colour.

General purpose grade, suitable for parts requiring high productivity.

General

Additive	• Nucleating Agent		
Features	• Fast Molding Cycle	• General Purpose	• Nucleated
Agency Ratings	• EU 2011/65/EC		
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PA6		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.70	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	9.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	2.7	--	%	
Viscosity Number				ISO 307
H2SO4 (Sulphuric Acid)	146	--	cm ³ /g	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	450000	174000	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	10900	6530	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	4.3	30	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	35	> 50	%	ISO 527-2/1A/50
Flexural Modulus ²	406000	--	psi	ISO 178
Flexural Stress ²	15200	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	2.1	--	ft·lb/in ²	
73°F	2.6	17	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F	No Break	--		

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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed	338	--	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed	140	--	°F	ISO 75-2/Af
Vicat Softening Temperature	374	--	°F	ISO 306/B50
Ball Pressure Test (> 338°F)	Pass	--		IEC 60695-10-2
Melting Temperature ³	428	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	4.7E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	4.7E-5	--	in/in/°F	ISO 11359-2
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
Comparative Tracking Index Solution A	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate (0.118 in)	0.0	--	in/min	ISO 3795
Flame Rating (0.031 in)	V-2	--		UL 94
Glow Wire Flammability Index 0.08 in	1560	--	°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	0.10	%
Processing (Melt) Temp	482 to 536	°F
Mold Temperature	158 to 176	°F
Injection Rate	Moderate	

Notes

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

² 0.079 in/min

³ 10°C/min