Radilon® S HSX88 100 NT

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 injection moulding grade. Toughened. Natural colour.

Suitable for parts requiring improved impact resistance.

General			
Additive	• Impact Modifier		
Features	• Good Impact Resistance	• Good Toughness	• Impact Modified
Agency Ratings	• EU 2011/65/EC		
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PA6-I		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.09	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.2	--	%	
Flow	1.3	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	8.8	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	2.6	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	319000	131000	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	8700	5800	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	4.3	20	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	> 50	> 100	%	ISO 527-2/1A/50
Flexural Modulus [2]	305000	116000	psi	ISO 178
Flexural Stress [2]	11600	4350	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	3.3	--	ft·lb/in²	
73°F	7.1	29	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F	No Break	--		
Notched Izod Impact Strength				ISO 180/1A
73°F	9.5	--	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				ISO 75-2/Bf
66 psi, Unannealed	293	--	°F	

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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	131	--	°F	
Vicat Softening Temperature	338	--	°F	ISO 306/B50
Ball Pressure Test (> 257°F)	Pass	--		IEC 60695-10-2
Melting Temperature [3]	428	--	°F	ISO 11357
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				IEC 60112
Solution A	600	--	V	
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Burning Rate (0.118 in)	< 1.2	--	in/min	ISO 3795
Flame Rating (0.031 in)	HB	--		UL 94
Glow Wire Flammability Index				IEC 60695-2-12
0.08 in	1200	--	°F	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.08 in	1250	--	°F	

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	500 to 554	°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