

Radilon® A ESL128W 333 BK

Radici Group High Performance Polymers - Polyamide 66

General Information

Product Description

PA66 injection moulding grade. Toughened, heat stabilized. Black colour.

Suitable for parts requiring good impact strength and excellent heat ageing resistance.

General

Additive	<ul style="list-style-type: none"> Heat Stabilizer Impact Modifier
Features	<ul style="list-style-type: none"> Good Impact Resistance Good Toughness Heat Aging Resistant Heat Stabilized
Uses	<ul style="list-style-type: none"> Automotive Applications
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"> Black
Processing Method	<ul style="list-style-type: none"> Injection Molding
Resin ID (ISO 1043)	<ul style="list-style-type: none"> PA66-HIT

Properties¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.10	--	g/cm ³	ISO 1183
Molding Shrinkage ²				ISO 294-4
Across Flow	1.4	--	%	
Flow	1.6	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	7.6	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	2.0	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	297000	225000	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	7980	6530	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	6.0	25	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	35	> 50	%	ISO 527-2/1A/50
Flexural Modulus ³	290000	123000	psi	ISO 178
Flexural Stress ³	11200	5800	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
73°F	26	29	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Bf
66 psi, Unannealed	284	--	°F	
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	140	--	°F	
Vicat Softening Temperature	410	--	°F	ISO 306/B50
Melting Temperature ⁴	500	--	°F	ISO 11357-3

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Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity ⁵	1.0E+12	1.0E+10	ohms	IEC 62631-3-2
Volume Resistivity ⁵	1.0E+15	1.0E+13	ohms·cm	IEC 62631-3-1
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

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	518 to 554 °F
Mold Temperature	158 to 194 °F
Injection Rate	Moderate

Notes

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

² 290°C Melt Temperature, 70°C Mold Temperature, 60 MPa Cavity Pressure

³ 0.079 in/min

⁴ 10°C/min

⁵ 500V