

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

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Additive	• Heat Stabilizer • Impact Modifier
Features	• Good Impact Resistance • Heat Aging Resistant • Good Toughness • Heat Stabilized
Uses	• Automotive Applications
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Automotive Specifications	• GM GMW16447P-PA66-T2
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA66-HIT

Properties ¹

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 (Saturation, 73°F, 0.0787 in)	7.6	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 0.0787 in, 50% RH)	2.0	--	%	ISO 62
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 (73°F)	26	29	ft·lb/in ²	ISO 179/1eA
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	284	--	°F	ISO 75-2/Bf
Deflection Temperature Under Load (264 psi, Unannealed)	140	--	°F	ISO 75-2/Af
Vicat Softening Temperature	410	--	°F	ISO 306/B50
Melting Temperature ⁴	500	--	°F	ISO 11357-3
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

