

# Radilon® A ESL128W 100 NT

## Radici Group High Performance Polymers - Polyamide 66

### General Information

#### Product Description

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

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

#### General

Additive	<ul style="list-style-type: none"> <li>Heat Stabilizer</li> <li>Impact Modifier</li> </ul>
Features	<ul style="list-style-type: none"> <li>Good Impact Resistance</li> <li>Heat Aging Resistant</li> <li>Good Toughness</li> <li>Heat Stabilized</li> </ul>
Uses	<ul style="list-style-type: none"> <li>Automotive Applications</li> </ul>
Agency Ratings	<ul style="list-style-type: none"> <li>EU 2011/65/EC</li> </ul>
RoHS Compliance	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
Appearance	<ul style="list-style-type: none"> <li>Natural Color</li> </ul>
Processing Method	<ul style="list-style-type: none"> <li>Injection Molding</li> </ul>
Resin ID (ISO 1043)	<ul style="list-style-type: none"> <li>PA66-HIT</li> </ul>

### Properties<sup>1</sup>

Physical	Dry	Conditioned	Unit	Test Method
Density	1.10	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage <sup>2</sup>				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	305000	225000	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	8700	6530	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	6.5	27	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	40	> 50	%	ISO 527-2/1A/50
Flexural Modulus <sup>3</sup>	305000	131000	psi	ISO 178
Flexural Stress <sup>3</sup>	11300	5800	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	19	--	ft·lb/in <sup>2</sup>	
73°F	26	30	ft·lb/in <sup>2</sup>	
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

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Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature <sup>4</sup>	500	--	°F	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity <sup>5</sup>	1.0E+12	1.0E+10	ohms	IEC 62631-3-2
Volume Resistivity <sup>5</sup>	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	0.15	%
Processing (Melt) Temp	518 to 554	°F
Mold Temperature	158 to 194	°F
Injection Rate	Moderate	

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 290°C Melt Temperature, 70°C Mold Temperature, 60 MPa Cavity Pressure

<sup>3</sup> 0.079 in/min

<sup>4</sup> 10°C/min

<sup>5</sup> 500V