

**Radilon® D 40EP50XK 1C 333 BK**

 Radici Group High Performance Polymers - *Polyamide 610*

## General Information

**Product Description**

PA610 anti-static extrusion grade. Toughened and plasticized. Heat stabilized. Black colour.

Suitable for extrusion of pipes with antistatic properties for automotive and industrial application. It offers improved impact resistance. This grade is partially renewably-sourced (64% of base polymer by weight).

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Antistatic • Heat Stabilizer		
Features	• Antistatic • Good Impact Resistance	• Impact Modifier • Plasticizer • Heat Stabilized • Plasticized	• Renewable Resource Content
Uses	• Automotive Applications	• Industrial Applications	• Piping
Agency Ratings	• EU 2011/65/EC		
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• GM GMW15702-110066		
Appearance	• Black		
Processing Method	• Extrusion	• Pipe Extrusion	
Resin ID (ISO 1043)	• PA610-HI-P		

 Properties <sup>1</sup>

Physical	Dry	Conditioned	Unit	Test Method
Density	1.13	--	g/cm <sup>3</sup>	ISO 1183
Water Absorption (Saturation, 73°F, 0.0787 in)	1.5	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 0.0787 in, 50% RH)	0.70	--	%	ISO 62
Biobased Carbon Content	64	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	160000	98600	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	5510	4060	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	40	--	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	70	> 100	%	ISO 527-2/1A/50
Flexural Modulus <sup>2</sup>	152000	--	psi	ISO 178
Flexural Stress <sup>2</sup>	4930	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (73°F)	33	--	ft·lb/in <sup>2</sup>	ISO 179/1eA
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	122	--	°F	ISO 75-2/Af
Melting Temperature <sup>3</sup>	423	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	--	9.3E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	--	9.4E-5	in/in/°F	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity <sup>4</sup>	1.0E+5	1.0E+5	ohms	IEC 62631-3-2
Volume Resistivity <sup>4</sup>	1.0E+9	1.0E+9	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

<b>Injection</b>	<b>Dry Unit</b>
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	446 to 500 °F
Mold Temperature	158 to 176 °F
Injection Rate	Moderate
<b>Extrusion</b>	<b>Dry Unit</b>
Melt Temperature	464 to 554 °F

### Notes

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

<sup>2</sup> 0.079 in/min

<sup>3</sup> 10°C/min

<sup>4</sup> 500V

