

# Radilon® DT 40E50USR 333C BK

## Radici Group High Performance Polymers - Polyamide 612

### General Information

#### Product Description

PA612 semi-rigid, high viscosity extrusion grade. Toughened. Improved resistance to uric acid solutions. Black colour.

Suitable for extrusion of profiles, tubes and pipes. Material especially developed for automotive under the hood applications, employed in selective catalytic reductions (SCR) systems.

#### General

Additive	• Impact Modifier		
Features	• Acid Resistant • High Viscosity	• Impact Modified • Semi Rigid	
Uses	• Automotive Under the Hood • Piping	• Profiles • Tubing	
Agency Ratings	• EU 2011/65/EC		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Processing Method	• Extrusion	• Pipe Extrusion	• Profile Extrusion
Resin ID (ISO 1043)	• PA612-I		

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

Physical	Dry	Conditioned	Unit	Test Method
Density	1.10	--	g/cm <sup>3</sup>	ISO 1183
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	2.0	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	0.80	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	133000	--	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	4350	--	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	25	--	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	> 100	--	%	ISO 527-2/1A/50
Flexural Modulus <sup>2</sup>	116000	--	psi	ISO 178
Flexural Stress <sup>2</sup>	4350	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	32	--	ft·lb/in <sup>2</sup>	
73°F	40	--	ft·lb/in <sup>2</sup>	
Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature <sup>3</sup>	414	--	°F	ISO 11357-3
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

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**Processing Information**

<b>Injection</b>	<b>Dry</b>	<b>Unit</b>
Drying Temperature	176	°F
Drying Time	2.0 to 4.0	hr
Dew Point	< -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</b>	<b>Unit</b>
Drying Temperature	176	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Cylinder Zone 1 Temp.	428	°F
Cylinder Zone 2 Temp.	482	°F
Cylinder Zone 3 Temp.	500	°F
Cylinder Zone 4 Temp.	518	°F
Melt Temperature	527	°F
Die Temperature	527 to 536	°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