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

Additive	• Antistatic • Heat Stabilizer	• Impact Modifier • Plasticizer	
Features	• Antistatic • Good Impact Resistance	• Heat Stabilized • Plasticized	• Renewable Resource Content
Uses	• Automotive Applications	• Industrial Applications	• Piping
Agency Ratings	• EU 2011/65/EC		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Processing Method	• Extrusion	• Pipe Extrusion	
Resin ID (ISO 1043)	• PA610-HI-P		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.13	--	g/cm³	ISO 1183
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	1.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	0.70	--	%	
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 [2]	152000	--	psi	ISO 178
Flexural Stress [2]	4930	--	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
73°F	33	--	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	122	--	°F	
Melting Temperature [3]	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

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Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity [4]	1.0E+5	1.0E+5	ohms	IEC 62631-3-2
Volume Resistivity [4]	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

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	446 to 500	°F
Mold Temperature	158 to 176	°F
Injection Rate	Moderate	
Extrusion	**Dry**	**Unit**
Melt Temperature	464 to 554	°F

Notes

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

[2] 0.079 in/min

[3] 10°C/min

[4] 500V