

Radilon® D 40P50K 100 NT

Radici Group High Performance Polymers - Polyamide 610

General Information

Product Description

PA610 flexible, high viscosity extrusion grade. Plasticized. Heat stabilized. Natural colour.

Suitable for extrusion of tubes and profiles. Typical application: air pressure pipes. This grade is partially renewably-sourced (64% of base polymer by weight).

General

Additive	• Heat Stabilizer	• Plasticizer
Features	• Heat Stabilized • High Viscosity	• Plasticized • Renewable Resource Content
Uses	• Piping	• Profiles • Tubing
Agency Ratings	• EU 2011/65/EC	
RoHS Compliance	• RoHS Compliant	
Appearance	• Natural Color	
Processing Method	• Extrusion	• Profile Extrusion
Resin ID (ISO 1043)	• PA610-P	

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.10	--	g/cm ³	ISO 1183
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	2.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.1	--	%	
Biobased Carbon Content	64	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	109000	76900	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	5800	4350	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	55	--	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	> 100	> 300	%	ISO 527-2/1A/50
Flexural Modulus ²	89900	--	psi	ISO 178
Flexural Stress ²	3630	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	2.9	--	ft·lb/in ²	
73°F	12	17	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	122	--	°F	
Melting Temperature ³	419	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	7.6E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	7.2E-5	--	in/in/°F	ISO 11359-2

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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

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