

HiDura™ D1XI2J BK0842

polyamide 612



HiDura D1XI2J BK0842 is a low viscosity, medium impact modified, and heat stabilized PA612 grade. It is suitable for profile and pipe extrusions. It exhibits low moisture absorption, good chemical resistance, dimensional stability, and high impact resistance. PA612 offers a unique balance of thermal, mechanical, and physical properties.

General

Regional Availability	• North America • South and Central America	• Europe • Near East/Africa	• Asia Pacific
Additive	• Heat Stabilizer		
Features	• Good Surface Finish • Organic Heat Stabilized	• Halogen Content, None	• Low Temperature Toughness
Agency Rating	• ASTM, D4066 PA0620B1200	• ASTM, D6779 PA0520B2201	• ISO, 1043 PA612 I
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Other Extrusion	• Profile Extrusion	• Sheet Extrusion

Physical

	dry	cond.	Unit	Test Standard
Density	1.00	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.2	*	%	
Flow : 23°C, 2.00 mm	2.9	*	%	
Water Absorption				ISO 62
23°C, 24 hr	0.3	*	%	
Equilibrium, 23°C, 50% RH	0.9	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	1000	600	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	29	-	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	35	32	MPa	ISO 527-2
Tensile Strain (Yield, 23°C)	32	-	%	ISO 527-2
Tensile Strain (Break, 23°C)	>50	>50	%	ISO 527-2
Flexural Modulus (23°C)	1100	600	MPa	ISO 178
Flexural Strength (23°C)	28	16	MPa	ISO 178
Poisson's Ratio (23°C)	0.4		-	ISO 527-2

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Impact	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	102	111	kJ/m²	
-30°C	99	107	kJ/m²	
-40°C	94	102	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	N	N	kJ/m²	
-30°C	N	N	kJ/m²	
-40°C	N	N	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	87	94	kJ/m²	
-30°C	85	93	kJ/m²	
-40°C	65	92	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	47	44	°C	
0.45 MPa, Unannealed	115	95	°C	
Melting Temperature	218	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	235	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	142	*	E-6/K	

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	31	30	kV/mm	IEC 60243

Extrusion	Value	Unit
Cylinder Zone 1 Temp	216 - 249	°C
Cylinder Zone 3 Temp	232 - 249	°C
Cylinder Zone 5 Temp	232 - 249	°C
Melt temperature	232 - 246	°C
Die temperature	232 - 246	°C