

HiDura™ D3XI3J BK0808

Ascend Performance Materials Operations LLC - Polyamide 612

General Information
Product Description

HiDura D3XI3J BK0808 is a high viscosity, low 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. This grade offers high burst pressures for extruded tubing systems. PA612 offers a unique balance of thermal, mechanical, and physical properties.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Heat Stabilizer	• Impact Modifier	
Features	• Good Surface Finish • Halogen Free • Heat Stabilized	• Heat Stabilized - Organic • High Melt Strength • High Viscosity	• Impact Modified
Agency Ratings	• ASTM D4066 PA0621	• ASTM D6779 PA0521	• ISO 1043 PA612 I
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Extrusion	• Profile Extrusion	• Sheet Extrusion
Resin ID	• PA612-I		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.05	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.7	--	%	
Flow : 73°F, 0.0787 in	1.7	--	%	
Water Absorption (24 hr, 73°F)	0.40	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.2	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	290000	189000	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	7830	6240	psi	ISO 527-2
Tensile Stress (Break, 73°F)	5800	7250	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	4.7	14	%	ISO 527-2
Tensile Strain (Break, 73°F)	> 50	> 50	%	ISO 527-2
Flexural Modulus (73°F)	290000	189000	psi	ISO 178
Flexural Stress (73°F)	8560	4790	psi	ISO 178
Poisson's Ratio (73°F)	0.40	--		ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	6.2	6.7	ft·lb/in ²	
-22°F	6.2	7.1	ft·lb/in ²	
73°F	8.6	27	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	No Break	No Break		
-22°F	No Break	No Break		
73°F	No Break	No Break		
Notched Izod Impact Strength				ISO 180/1A
-40°F	6.2	6.2	ft·lb/in ²	
-22°F	6.2	7.6	ft·lb/in ²	



73°F	6.7	24	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	293	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	135	--	°F	ISO 75-2/A
Melting Temperature	424	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	5.3E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	6.1E-5	--	in/in/°F	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Electric Strength (0.0394 in)	810	760	V/mil	IEC 60243-1

Processing Information

Extrusion	Dry Unit	
Cylinder Zone 1 Temp.	421 to 480 °F	
Cylinder Zone 3 Temp.	450 to 480 °F	
Cylinder Zone 5 Temp.	450 to 480 °F	
Melt Temperature	450 to 475 °F	
Die Temperature	450 to 475 °F	

Notes

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

