

HiDura™ C3XI1H NT0978

Ascend Performance Materials Operations LLC - *Polyamide 66/6 Copolymer*

General Information

Product Description

HiDura C3XI1H NT0978 is an impact modified polyamide 66/6 designed for the extrusion of pipes and pipe layers. This grade was designed to provide good melt strength and heat stability while maintaining the benefits of nylon including toughness and good chemical resistance.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Heat Stabilizer	• Impact Modifier	
Features	• Copolymer • Good Heat Resistance • Good Impact Resistance	• Heat Stabilized • High Melt Stability • High Viscosity	• Impact Modified • Oil Resistant • Solvent Resistant
Agency Ratings	• ASTM D4066 PA1100B33610	• ASTM D6779 PA0800B33610	
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Profile Extrusion	• Sheet Extrusion
Resin ID	• PA66/6-I		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.09	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.3	--	%	
Flow : 73°F, 0.0787 in	1.4	--	%	
Water Absorption (24 hr, 73°F)	2.8	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	300000	83300	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	8370	4610	psi	ISO 527-2
Tensile Stress (Break, 73°F)	7150	6500	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	4.5	33	%	ISO 527-2
Tensile Strain (Break, 73°F)	> 50	> 50	%	ISO 527-2
Flexural Modulus (73°F)	297000	70100	psi	ISO 178
Flexural Stress (73°F)	9180	1910	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	12	6.7	ft·lb/in ²	
-22°F	9.2	7.7	ft·lb/in ²	
73°F	11	62	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	10	7.7	ft·lb/in ²	
-22°F	7.8	8.7	ft·lb/in ²	
73°F	10	53	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method



Deflection Temperature Under Load (66 psi, Unannealed)	315	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	122	--	°F	ISO 75-2/A
Melting Temperature	423	--	°F	ISO 11357-3

Processing Information

Extrusion	Dry Unit			
Cylinder Zone 1 Temp.	473 to 509 °F			
Cylinder Zone 2 Temp.	473 to 509 °F			
Cylinder Zone 3 Temp.	464 to 500 °F			
Cylinder Zone 4 Temp.	446 to 491 °F			
Cylinder Zone 5 Temp.	437 to 482 °F			
Melt Temperature	473 to 509 °F			
Die Temperature	473 to 509 °F			

Notes

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

