

HiDura™ D2X NT

Ascend Performance Materials Operations LLC - Polyamide 612

General Information

Product Description

HiDura D2X NT is a medium-high viscosity PA612 grade. It is suitable for monofilament, film and profile extrusion applications. It exhibits low moisture absorption, good chemical resistance, dimensional stability and high impact resilience. PA612 offers a unique balance of thermal, mechanical and physical properties.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• Abrasion Resistant	• Chemical Resistant	• Medium-high Viscosity
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Casting • Extrusion	• Film Extrusion • Injection Molding	• Profile Extrusion • Sheet Extrusion
Resin ID	• PA612		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.06	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.9	--	%	
Flow : 73°F, 0.0787 in	1.7	--	%	
Water Absorption (24 hr, 73°F)	0.39	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.3	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	319000	203000	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	8990	8850	psi	ISO 527-2
Tensile Strain (Break, 73°F)	170	280	%	ISO 527-2
Flexural Modulus (73°F)	305000	218000	psi	ISO 178
Flexural Stress (73°F)	10300	5660	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	1.7	3.1	ft·lb/in ²	
-22°F	1.6	2.8	ft·lb/in ²	
73°F	2.1	4.3	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	2.0	2.2	ft·lb/in ²	
-22°F	2.0	3.4	ft·lb/in ²	
73°F	1.9	2.7	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	257	261	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	124	--	°F	ISO 75-2/A
Melting Temperature	424	--	°F	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Electric Strength (0.0394 in)	810	--	V/mil	IEC 60243-1

Processing Information



Injection	Dry Unit
Drying Temperature	176 °F
Drying Time	4.0 to 6.0 hr
Suggested Max Moisture	0.15 %
Processing (Melt) Temp	446 to 554 °F
Mold Temperature	122 to 212 °F
Extrusion	Dry Unit
Melt Temperature	455 to 500 °F

Notes

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

