

HiDura™ S2X NT

Ascend Performance Materials Operations LLC - Polyamide 610

General Information

Product Description

HiDura S2X NT is a medium viscosity PA610 grade with 62% bio-based content. It is suitable for monofilament, film, and general purpose injection molding applications. PA610 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	• Good Strength • Medium-high Viscosity	• Renewable Resource Content
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Casting • Extrusion	• Film Extrusion • Injection Molding	• Profile Extrusion • Sheet Extrusion
Resin ID	• PA610		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.07	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.6	--	%	
Flow : 73°F, 0.0787 in	1.8	--	%	
Biobased Carbon Content	62	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	305000	160000	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	8850	8850	psi	ISO 527-2
Tensile Strain (Break, 73°F)	220	300	%	ISO 527-2
Flexural Modulus (73°F)	290000	145000	psi	ISO 178
Flexural Stress (73°F)	8700	3920	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	3.2	2.1	ft·lb/in ²	
-22°F	3.3	2.1	ft·lb/in ²	
73°F	2.7	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	2.2	2.4	ft·lb/in ²	
-22°F	2.4	2.1	ft·lb/in ²	
73°F	2.3	3.2	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	262	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	122	--	°F	ISO 75-2/A
Melting Temperature	437	--	°F	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Electric Strength (0.0394 in)	840	710	V/mil	IEC 60243-1

