HiDura™ D0X NT

Ascend Performance Materials Operations LLC - *Polyamide 612*

General Information

Product Description

HiDura D0X NT is a neat, low viscosity PA612 grade. Given its low melt viscosity and excellent flow, it is a suitable feedstock for injection molding of thin or highly filled parts and in certain extrusion applications. It exhibits low moisture absorption, good chemical resistance and dimensional stability. 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	• Good Flow • High Flow	• Low Viscosity
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	
Resin ID	• PA612		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.06	--	g/cm³	ISO 1183
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)	305000	232000	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	9280	7830	psi	ISO 527-2
Tensile Strain (Break, 73°F)	27	130	%	ISO 527-2
Flexural Modulus (73°F)	334000	392000	psi	ISO 178
Flexural Stress (73°F)	9860	6380	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	1.4	1.6	ft·lb/in²	
-22°F	1.4	1.7	ft·lb/in²	
73°F	1.6	2.8	ft·lb/in²	
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	1.6	2.1	ft·lb/in²	
-22°F	1.6	1.8	ft·lb/in²	
73°F	1.7	1.9	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	291	241	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	144	--	°F	ISO 75-2/A
Melting Temperature	424	--	°F	ISO 11357-3
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Electric Strength (0.0394 in)	790	740	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

Notes

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