

HiDura™ D1XA NT

polyamide 612

HiDura D1XA NT is a low-medium viscosity PA612 grade. It is suitable for monofilament, film and general purpose injection molding 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

Regional Availability	• North America	• Europe	• Asia Pacific
Features	• Abrasion Resistance	• Chemical Resistant	• Medium Viscosity
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Casting • Profile Extrusion	• Injection Molding • Sheet Extrusion	• Other Extrusion

Physical

	dry	cond.	Unit	Test Standard
Density	1.06	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	2.0	*	%	
Flow : 23°C, 2.00 mm	1.9	*	%	
Water Absorption				ISO 62
23°C, 24 hr	0.4	*	%	
Equilibrium, 23°C, 50% RH	1.3	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	2100	1500	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	60	54	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	44	63	MPa	ISO 527-2
Tensile Strain (Yield, 23°C)	4.4	19	%	ISO 527-2
Tensile Strain (Break, 23°C)	>50	>50	%	ISO 527-2
Flexural Modulus (23°C)	2200	1500	MPa	ISO 178
Flexural Strength (23°C)	68	39	MPa	ISO 178

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	5.3	7.2	kJ/m ²	
-30°C	5.7	5.6	kJ/m ²	
-40°C	5.7	5.2	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	N	N	kJ/m ²	
-30°C	N	N	kJ/m ²	

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-40°C	N	N	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	4.4	5.2	kJ/m²	
-30°C	5.1	4.8	kJ/m²	
-40°C	5.1	4.1	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	59	-	°C	
0.45 MPa, Unannealed	136	-	°C	
Melting Temperature	218	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	120	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	136	*	E-6/K	

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	30	30	kV/mm	IEC 60243

Injection	Value	Unit
Drying Temperature	80	°C
Drying Time	4 - 6	h
Suggested Max Moisture	0.15	%
Rear Temperature	260 - 275	°C
Middle Temperature	265 - 280	°C
Front Temperature	265 - 290	°C
Nozzle temperature	265 - 290	°C
Processing (Melt) Temperature	230 - 290	°C
Mold Temperature	50 - 100	°C

Extrusion	Value	Unit
Cylinder Zone 1 Temp	240 - 260	°C
Cylinder Zone 2 Temp	240 - 260	°C
Cylinder Zone 3 Temp	240 - 260	°C
Cylinder Zone 4 Temp	240 - 260	°C
Cylinder Zone 5 Temp	240 - 260	°C
Melt temperature	230 - 255	°C
Die temperature	240 - 260	°C