

HiDura™ D3X NT

polyamide 612

HiDura D3X NT is a high viscosity PA612 grade. It is suitable for monofilament, film and profile extrusion applications; it can also be used for molded applications where high abrasion resistance and ductility are key requirements. 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	• High Viscosity
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Casting • Other Extrusion	• Film Extrusion • Profile Extrusion	• Injection Molding • Sheet 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	1.9	*	%	
Flow : 23°C, 2.00 mm	1.7	*	%	
Water Absorption				ISO 62
Equilibrium, 23°C, 50% RH	1.3	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	2100	1400	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	60	62	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	210	300	%	ISO 527-2
Flexural Modulus (23°C)	2100	1400	MPa	ISO 178
Flexural Strength (23°C)	63	37	MPa	ISO 178

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	3.9	7.8	kJ/m ²	
-30°C	3	5.8	kJ/m ²	
-40°C	3.6	5.7	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	N	N	kJ/m ²	
-30°C	N	N	kJ/m ²	
-40°C	N	N	kJ/m ²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	5.3	6.9	kJ/m ²	

HiDura™ D3X NT

polyamide 612



-30°C	4.4	5.4	kJ/m²
-40°C	4.1	5.4	kJ/m²

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	53	-	°C	
0.45 MPa, Unannealed	129	-	°C	
Melting Temperature	218	*	°C	ISO 11357-3

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	31	31	kV/mm	IEC 60243

Injection	Value	Unit
Drying Temperature	80	°C
Drying Time	2 - 4	h
Suggested Max Moisture	0.15	%
Processing (Melt) Temperature	235 - 290	°C
Mold Temperature	50 - 90	°C

HiDURA™