

HiDura™ PTR 840F

Ascend Performance Materials Operations LLC - *Polyamide 66/6 Copolymer*

General Information

Product Description

HiDura PTR 840F is a polyamide copolymer that features good melt strength, flexibility, toughness, and slow crystallization. It offers melt viscosity and crystallization rate suitable for blown film, multi-bubble blown film, and thermoforming.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Additive	• Lubricant		
Features	• Chemical Resistant • High Elongation • High Impact Resistance • High Melt Stability	• High Melt Strength • High Strength • High Toughness • High Viscosity	• Lubricated • Puncture Resistant
Agency Ratings	• ASTM D4066 • ASTM D6779	• EC 1935/2004 • EU 10/2011	• EU 2023/2006 • FDA 21 CFR 177.1500
Appearance	• Natural Color		
Forms	• Pellets		
Resin ID	• PA66/6		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.12	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.4	--	%	
Flow : 73°F, 0.0787 in	1.4	--	%	
Water Absorption (24 hr, 73°F)	3.2	--	%	ISO 62
Water Absorption (Saturation, 73°F)	11	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	2.7	--	%	ISO 62
Relative Viscosity ²	3.90	--		ISO 307
Moisture Content	< 0.10	--	%	ASTM D6869
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	334000	90900	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	10200	9280	psi	ISO 527-2
Tensile Strain (Break, 73°F)	210	390	%	ISO 527-2
Flexural Modulus (73°F)	348000	69000	psi	ISO 178
Flexural Stress (73°F)	10700	2030	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	1.5	1.3	ft·lb/in ²	
-22°F	1.6	1.2	ft·lb/in ²	
73°F	1.8	20	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	No Break	85 ft·lb/in ²		
-22°F	No Break	85 ft·lb/in ²		
73°F	No Break	78 ft·lb/in ²		
Notched Izod Impact Strength				ISO 180/1A
-40°F	2.0	2.8	ft·lb/in ²	
-22°F	1.9	2.3	ft·lb/in ²	
73°F	2.0	8.1	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method



Deflection Temperature Under Load (66 psi, Unannealed)	156	248	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	117	160	°F	ISO 75-2/A
Melting Temperature	441	--	°F	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Electric Strength (0.0394 in)	710	710	V/mil	IEC 60243-1

Processing Information				
Extrusion			Dry Unit	
Cylinder Zone 1 Temp.			473 to 509 °F	
Cylinder Zone 2 Temp.			473 to 509 °F	
Cylinder Zone 3 Temp.			464 to 500 °F	
Cylinder Zone 4 Temp.			446 to 491 °F	
Cylinder Zone 5 Temp.			437 to 482 °F	
Melt Temperature			473 to 509 °F	
Die Temperature			473 to 509 °F	

Notes

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

² Sulphuric Acid

