

HiDura™ PTR 833C

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

General Information

Product Description

HiDura PTR 833C is a polyamide copolymer that features high strength, flexibility, and toughness. It offers melt viscosity and crystallization rate suitable for cast film, mono- and biaxially oriented film, and some blown film applications.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Additive	• Lubricant		
Features	• Chemical Resistant • High Melt Stability • High Strength	• High Toughness • Lubricated • Medium-high Viscosity	• Puncture Resistant
Agency Ratings	• EC 1935/2004	• EU 10/2011	• EU 2023/2006
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	125000	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	10600	9430	psi	ISO 527-2
Tensile Strain (Break, 73°F)	260	340	%	ISO 527-2
Flexural Modulus (73°F)	334000	88000	psi	ISO 178
Flexural Stress (73°F)	10200	2470	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	1.6	1.3	ft·lb/in ²	
-22°F	1.7	1.3	ft·lb/in ²	
73°F	2.0	8.6	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	2.5	ft·lb/in ²	
-22°F	2.2	2.1	ft·lb/in ²	
73°F	2.2	5.2	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	241	280	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	122	217	°F	ISO 75-2/A
Melting Temperature	450	--	°F	ISO 11357-3



Electrical	Dry	Conditioned	Unit	Test Method
Electric Strength (0.0394 in)	710	760	V/mil	IEC 60243-1

Processing Information

Extrusion	Dry	Unit
Cylinder Zone 1 Temp.	509 to 536	°F
Cylinder Zone 2 Temp.	509 to 536	°F
Cylinder Zone 3 Temp.	500 to 527	°F
Cylinder Zone 4 Temp.	482 to 518	°F
Cylinder Zone 5 Temp.	473 to 509	°F
Melt Temperature	500 to 536	°F
Die Temperature	500 to 536	°F

Notes

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

² Sulphuric Acid

