Amphora™ 3D Polymer HT5300

Unspecified

Eastman Chemical Company

Message:

Eastman Amphora™ HT5300 3D polymer is a low-odor, and styrene-free material uniquely suited for advanced 3D printing users, particularly those who need their creations to exhibit superior durability, dimensional stability, toughness, and high temperature resistance.The model of functional aesthetics, Amphora HT5300 can be made into high-quality filament that exhibits advanced overhang ability, excellent toughness and temperature resistance, good looks, and superior melt strength—empowering professional users to create durable, more useful items. Demonstrating superior dimensional stability, BPA-free HT5300 allows for 3D printing to exacting dimensions, which is especially important for products with tight tolerances and multi-component parts. Moreover, with its outstanding toughness and chemical resistance, Amphora HT5300 is ideal for prototyping and testing products, especially for applications that require temperature resistance up to 100°C.

General Information			
Features	Good dimensional stability Workability, good Heat resistance, high Durability The smell is low to none Good toughness		
Uses	Filament		
Processing Method	3D Printing, Fused Filament Fabrication (FFF)		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.18	g/cm³	ASTM D792
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale, 23°C)	111		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D638
Yield, 23°C	43.0	MPa	ASTM D638
Fracture, 23°C	52.0	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield, 23°C	7.0	%	ASTM D638
Fracture, 23°C	210	%	ASTM D638
Flexural Modulus (23°C)	1580	MPa	ASTM D790
Flexural Strength	64.0	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	860	J/m	ASTM D256
Unnotched Izod Impact (23°C)	No Break		ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	94.0	°C	ASTM D648
1.8 MPa, not annealed	81.0	°C	ASTM D648

Additional Information

Typical Processing Conditions:
Processing Melt Temperature: 250 to 260°C
Heated Bed Temperature: 90 to 110°C
Cooling: 0 to 100%
Layer Height: 0.1 or 0.2 mm
Speed: 30 to 600 mm/s
Infill: As needed up to 100%
Perimeter: Around 1 mm
Minimal Layer Time: 5 sec

Recommended distributors for this material

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