

# STYRON™ 666H

## General Purpose Polystyrene Resin

### Overview

STYRON™ 666H is a general purpose polystyrene with easy flow and good clarity. It is recommended for applications where a specific balance of flow and strength are important.

Applications:

- Media enclosures
- Disposable cups
- Blending with HIPS

Complies with:

- U.S. FDA 21 CFR 177.1640
- Consult the regulation for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.04 g/cm <sup>3</sup>	1.04 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	8.0 g/10 min	8.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow	4.0E-3 to 7.0E-3 in/in	0.40 to 0.70 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			ASTM D638
Compression Molded	464000 psi	3200 MPa	
Injection Molded	479000 psi	3300 MPa	
Tensile Strength			ASTM D638
Yield, Compression Molded	5800 psi	40.0 MPa	
Yield, Injection Molded	6900 psi	47.6 MPa	
Ultimate, Compression Molded	5800 psi	40.0 MPa	
Ultimate, Injection Molded	6900 psi	47.6 MPa	
Tensile Elongation			ASTM D638
Break, Compression Molded	1.0 %	1.0 %	
Break, Injection Molded	2.0 %	2.0 %	
Flexural Modulus			ASTM D790
Compression Molded	450000 psi	3100 MPa	
Injection Molded	470000 psi	3240 MPa	
Flexural Strength			ASTM D790
Compression Molded	8200 psi	56.5 MPa	
Injection Molded	13000 psi	89.6 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), Compression Molded	0.21 ft-lb/in	11 J/m	
73°F (23°C), Injection Molded	0.30 ft-lb/in	16 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	169 °F	76.1 °C	
264 psi (1.8 MPa), Annealed	201 °F	93.9 °C	
Vicat Softening Temperature	210 °F	99.0 °C	ASTM D1525
CLTE - Flow	4.2E-5 in/in/°F	7.6E-5 cm/cm/°C	ASTM D696
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating (0.0579 in (1.47 mm))	HB	HB	UL 94 <sup>1</sup>

**Notes**

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

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<sup>1</sup> This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



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