

# STYRON™ 666H

## General Purpose Polystyrene Resin

### Dow Plastics



Prospector

#### Product Description

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.

#### General

Material Status	• Commercial: Active
Availability	• Asia Pacific
Agency Ratings	• FDA 21 CFR 177.1640 • UL 94 <sup>1</sup>
Forms	• Pellets
Processing Method	• Extrusion • Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	8.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 to 0.70	%	ASTM D955

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			ASTM D638
Compression Molded	3200	MPa	
Injection Molded	3300	MPa	
Tensile Strength			ASTM D638
Yield, Compression Molded	40.0	MPa	
Yield, Injection Molded	47.6	MPa	
Ultimate, Compression Molded	40.0	MPa	
Ultimate, Injection Molded	47.6	MPa	
Tensile Elongation			ASTM D638
Break, Compression Molded	1.0	%	
Break, Injection Molded	2.0	%	
Flexural Modulus			ASTM D790
Compression Molded	3100	MPa	
Injection Molded	3240	MPa	
Flexural Strength			ASTM D790
Compression Molded	56.5	MPa	
Injection Molded	89.6	MPa	

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
23°C, Compression Molded	11.0	J/m	
23°C, Injection Molded	16.0	J/m	

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	76.1	°C	
1.8 MPa, Annealed	93.9	°C	
Vicat Softening Temperature	99.0	°C	ASTM D1525
CLTE - Flow	0.000076	cm/cm/°C	ASTM D696

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (1.47 mm)	HB		UL 94

#### Notes

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

<sup>2</sup> Typical properties: these are not to be construed as specifications.

**Revision History**

Document Created: Wednesday, August 26, 2009  
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