

STYRON™ 656D

General Purpose Polystyrene Resin

Overview

STYRON™ 656D 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
- Europe REGULATION (EC) 10/2011
- Consult the regulation for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.04 g/cm ³	1.04 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	8.5 g/10 min	8.5 g/10 min	ASTM D1238
Molding Shrinkage - Flow	4.0E-3 to 7.0E-3 in/in	0.40 to 0.70 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield, Compression Molded)	6900 psi	47.6 MPa	ASTM D638
Tensile Elongation (Break, Injection Molded)	2.0 %	2.0 %	ASTM D638
Flexural Modulus (Injection Molded)	470000 psi	3240 MPa	ASTM D790
Flexural Strength (Injection Molded)	12600 psi	86.9 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), Injection Molded	0.40 ft-lb/in	21 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	203 °F	95.0 °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 ¹ (0.06 in (1.5 mm))	HB	HB	UL 94

Notes

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

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



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