



# 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
- 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 Index (200°C/5.0 kg)	8.5 g/10 min	8.5 g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.0040 to 0.0070 in/in	0.40 to 0.70 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			ASTM D638
Compression Molded	450000 psi	3100 MPa	
Injection Molded	470000 psi	3240 MPa	
Tensile Strength			ASTM D638
Yield, Compression Molded	5900 psi	40.7 MPa	
Yield, Injection Molded	6900 psi	47.6 MPa	
Ultimate, Compression Molded	5900 psi	40.7 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 Strength			ASTM D790
Compression Molded	8200 psi	56.5 MPa	
Injection Molded	12600 psi	86.9 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
Compression Molded	0.206 ft-lb/in	11.0 J/m	
73°F (23°C), Injection Molded	0.393 ft-lb/in	21.0 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	0.000023 in/in/°F	0.000042 cm/cm/°C	ASTM D696
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating - UL (0.0579 in (1.47 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.

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