TRINSEO™

STYRON™ 6500
Ignition Resistant Polystyrene Resin

Overview

STYRON™ 6500 is an ignition-resistant polystyrene resin with excellent balance of strength, heat resistance and flow properties that are tailor-made for consumer electronics applications. It is a non-deca ignition resistant polystyrene which is free from polybrominated diphenyl ether (PBDPE) and polybrominated biphenyl (PBB). It is designed for injection molding application.

Main Characteristics:

- Good flow
- Excellent heat resistance
- UL 94 V-0 @ 1.5 mm

Applications:

- LCD TV enclosures

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.16	g/cm³	1.16	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	10	g/10 min	10	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 Strength					ASTM D638
Yield, Compression Molded	2500	psi	17.2	MPa	
Yield, Injection Molded	3000	psi	20.7	MPa	
Break, Compression Molded	2000	psi	13.8	MPa	
Break, Injection Molded	2800	psi	19.3	MPa	
Tensile Elongation					ASTM D638
Break, Compression Molded	30	%	30	%	
Break, Injection Molded	40	%	40	%	
Flexural Modulus					ASTM D790
Compression Molded	288000	psi	1990	MPa	
Injection Molded	344000	psi	2370	MPa	
Flexural Strength					ASTM D790
Compression Molded	4900	psi	33.8	MPa	
Injection Molded	5900	psi	40.7	MPa	
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Notched Izod Impact					ASTM D256
73°F (23°C), Compression Molded	1.2	ft·lb/in	64	J/m	
73°F (23°C), Injection Molded	1.5	ft·lb/in	80	J/m	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Vicat Softening Temperature	212	°F	100	°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))	V-0		V-0		UL 94