STYRON™ 6500

Trinseo - Ignition Resistant Polystyrene Resin

Tuesday, November 5, 2019

General Information

Product Description

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

General			
Material Status	• Commercial: Active		
Availability	• Latin America	• North America	
Features	• Bromine Free • Flame Retardant	• Good Flow • Good Strength	• High Heat Resistance
Uses	• Electrical/Electronic Applications	• LCD Applications	• Television Housings
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.16		ASTM D792
Melt Mass-Flow Rate (200°C/5.0 kg)	10	g/10 min	ASTM D1238
Molding Shrinkage - Flow	4.0E-3 to 7.0E-3	in/in	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D638
Yield, Compression Molded	2500	psi	
Yield, Injection Molded	3000	psi	
Tensile Strength			ASTM D638
Break, Compression Molded	2000	psi	
Break, Injection Molded	2800	psi	
Tensile Elongation			ASTM D638
Break, Compression Molded	30	%	
Break, Injection Molded	40	%	
Flexural Modulus			ASTM D790
Compression Molded	288000	psi	
Injection Molded	344000	psi	
Flexural Strength			ASTM D790
Compression Molded	4900	psi	
Injection Molded	5900	psi	

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Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
73°F, Compression Molded	1.2	ft·lb/in	
73°F, Injection Molded	1.5	ft·lb/in	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	212	°F	ASTM D1525
CLTE - Flow	4.2E-5	in/in/°F	ASTM D696
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating [2] (0.06 in)	V-0		UL 94

Notes

[1] Typical properties: these are not to be construed as specifications.

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