



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 | • Good Flow | • High Heat Resistance |
| | • Flame Retardant | • Good Strength | |
| 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.