

STYRON™ 6300

Ignition-Resistant Polystyrene Resins

STYRON™ 6300 is an ignition-resistant polystyrene resin with excellent balance of strength, toughness and flow properties for consumer electronics and information technology equipment (ITE) applications. It contains brominated flame retardant but is free from polybrominated Diphenyl Ether (PBDPE)

Main Characteristics

- Good flow
- Excellent toughness
- UL94 V-0

Applications

- TV
- ITE

| Properties | Test Method | Unit | Typical Value |
|---------------------------------|-------------|-------------------|---------------|
| Physical | | | |
| Melt Flow Rate (200 deg C/5 kg) | ASTM D1238 | g/10 min | 9.5 |
| Density | ASTM D792 | g/cm ³ | 1.16 |
| Mold Shrinkage | ASTM D955 | in/in | 0.004-0.007 |
| UL 94 Classification @ 1.5 mm | | | V-0 |

Injection Molded Properties

Mechanical

| | | | |
|----------------------------|-----------|----------|--------|
| Yield, Tensile Strength | ASTM D638 | psi | 2900 |
| Ultimate, Tensile Strength | ASTM D638 | psi | 2500 |
| Break Elongation | ASTM D638 | % | 50 |
| Flexural Strength | ASTM D790 | psi | 5500 |
| Flexural Modulus | ASTM D790 | psi | 311000 |
| Notched Izod @ 23 deg C | ASTM D256 | ft-lb/in | 2.3 |

Compression Molded Properties

Mechanical

| | | | |
|---------------------------|-----------|----------|--------|
| Yield Tensile Strength | ASTM D638 | psi | 2400 |
| Ultimate Tensile Strength | ASTM D638 | psi | 1800 |
| Break Elongation | ASTM D638 | % | 40 |
| Flexural Strength | ASTM D790 | psi | 4500 |
| Flexural Modulus | ASTM D790 | psi | 244000 |
| Notched Izod @ 23 deg C | ASTM D256 | ft-lb/in | 2 |

Thermal

| | | | |
|--|------------|-------|----|
| Vicat Softening Point | ASTM D1525 | deg C | 98 |
| Deflection Temperature Under Load @ 1.82 Mpa, unannealed | ASTM D648 | deg C | 69 |
| Deflection Temperature Under Load @ 1.82 Mpa, annealed | ASTM D648 | deg C | 90 |

Notes

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