# STYRON™ 637
## General Purpose Polystyrene Resin

### Overview

STYRON™ 637 is a general purpose polystyrene designed for use in extrusion blending with impact polystyrene where its high strength can be used to maximum advantage. It is a high molecular weight material designed for extrusion blending. Its high strength makes it ideally suited for packaging applications.

Applications:

- Injection molded packages
- Packaging foam extrusion
- Injection molded containers

Complies with:

- Europe REGULATION (EC)10/2011
- U.S. FDA 21 CFR 177.1640
- Consult the regulations for complete details.

| Physical | Nominal Value | (English) | Nominal Value | (SI) | Test Method |
|---|---|---|---|---|---|
| Density | 1.04 | g/cm³ | 1.04 | g/cm³ | ISO 1183 |
| Apparent (Bulk) Density | 0.60 | g/cm³ | 0.60 | g/cm³ | ISO 60 |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 2.5 | g/10 min | 2.5 | g/10 min | ISO 1133 |
| **Mechanical** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Tensile Stress (Yield) | 7980 | psi | 55.0 | MPa | ISO 527-2/5 |
| Tensile Strain (Break) | 2.0 | % | 2.0 | % | ISO 527-2/5 |
| Flexural Modulus | 479000 | psi | 3300 | MPa | ISO 178 |
| Flexural Stress | 11600 | psi | 80.0 | MPa | ISO 178 |
| **Hardness** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Ball Indentation Hardness | 21800 | psi | 150 | MPa | ISO 2039-1 |
| **Thermal** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Deflection Temperature Under Load | | | | | ISO 75-2/A |
| 264 psi (1.8 MPa), Annealed | 194 | °F | 90.0 | °C | |
| Vicat Softening Temperature | 207 | °F | 97.0 | °C | ISO 306/A120 |
| **Flammability** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Flame Rating [1] (0.06 in (1.5 mm)) | HB | | HB | | UL 94 |

**Additional Information**

Mass balance versions (bio-based (BIO) or chemically recycled (CR)) of this product are chemically and physically indistinguishable to the standard fossil grade. This technical data sheet applies to all versions. Letters of sameness are available upon request.