

Star HIPS 3

Polystyrene - Impact



Overview

Designed specifically for extrusion/thermoforming. The polymer's balanced properties and processing characteristics make it especially suitable for industrial packaging deep draw thermoforming and custom multilayer sheet extrusion. Over the years, this popular resin has established itself as the industry standard extrusion grade high impact polystyrene.

General Information:

- This material complies with FDA requirements as described in 21 CFR §177.1640.
- This material holds Underwriters Laboratory recognition 94HB; see UL File E55470 at www.UL.com.
- USP Class VI
- Material Safety Data Sheets are available to help customers satisfy their safety needs.

Applications

- Custom sheet extrusion
- Extrusion thermoforming
- Packaging applications
- Form – Fill – Seal applications

| Property | Value | Unit | ASTM |
|--------------------------------------|-------|-------------------------|--------|
| Melt index (condition 230°C/2.16 kg) | 3.0 | g/10 min | D 1238 |
| Density (g/cm ³) | 1.040 | g/cm ³ | D 792 |
| Falling Dart | 110 | in-lb | D3029 |
| Izod - notched | 2.3 | ft-lbs/in | D256 |
| Tensile Strength | 3,600 | psi | D638 |
| Tensile Modulus | 3.0 | psi (10 ⁵) | D638 |
| Elongation | 50 | % | D638 |
| Flexural Strength | 6,900 | psi | D790 |
| Flexural Modulus | 3.2 | psi (10 ¹⁰) | D790 |

| Property | Value | Unit | ASTM |
|----------------------------|-------------|-------|-------|
| Heat Distortion - Annealed | 202 | °F | D648 |
| Vicat Softening | 215 | °F | D1525 |
| Gloss | 70 | 60° | D523 |
| Linear Shrinkage | .004 - .007 | in/in | D955 |
| Moisture | <0.1 | % | |