

Technical Data Sheet High Impact Polystyrene

Produced in the United States

## **Description**

**Polystyrene 740:** Impact polystyrene designed for extrusion and injection molding. It is especially suitable for extrusion thermoforming applications requiring high gloss and high stiffness. A unique combination of thermal properties and high stiffness favors 740 for thin walling, high-speed thermoforming gloss, small appliance, and electronics applications.

## Application:

- Food service disposables such as lids, cups, and portion cup containers.
- · Injection molding applications requiring high gloss.

## **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 V
- Material Safety Data Sheets are available to help customers satisfy their safety needs.

## **Characteristics**

|                            | Method | Unit                   | Typical Value |
|----------------------------|--------|------------------------|---------------|
| Rheological Properties     |        |                        |               |
| Melt Flow (200°C-5kg)      | D-1238 | g/10mn                 | 4.0           |
| Mechanical Properties      |        |                        |               |
| Falling Dart               | D-3029 | in-lb                  | 120           |
| Izod - notched             | D-256  | ft-lbs/in              | 2.0           |
| Tensile Strength           | D-638  | psi                    | 4,400         |
| Tensile Modulus            | D-638  | psi (10 <sup>5</sup> ) | 3.4           |
| Elongation                 | D-638  | %                      | 45            |
| Flexural Strength          | D-790  | psi                    | 8,000         |
| Flexural Modulus           | D-790  | psi (10 <sup>5</sup> ) | 3.7           |
| Thermal Properties         |        |                        |               |
| Heat Distortion - Annealed | D-648  | °F                     | 201           |
| Vicat Softening            | D-1525 | °F                     | 214           |
| Other Physical Properties  |        |                        |               |
| Gloss                      | D-523  | 60°                    | 92            |
| Density                    |        | g/cm <sup>3</sup>      | 1.04          |
| Linear Shrinkage           | D-955  | in/in                  | .004008       |
| Moisture                   |        | %                      | <0.1          |

