

## Description

**Polystyrene 845E:** Is high impact polystyrene specially designed for the custom sheet market. This polymer produces tough, ductile sheet with a rich matte finish.

### Application:

- This low gloss resin is an excellent choice for printing and thermoforming applications.
- The impact and tensile properties are preferred in deep draw and thermoforming applications.

### 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](http://www.UL.com).
- USP Class VI
- Material Safety Data Sheets are available to help customers satisfy their safety needs.

## Characteristics

|                                  | Method | Unit                   | Typical Value |
|----------------------------------|--------|------------------------|---------------|
| <b>Rheological Properties</b>    |        |                        |               |
| Melt Flow (200°C-5kg)            | D-1238 | g/10mn                 | 3.0           |
| <b>Mechanical Properties</b>     |        |                        |               |
| Falling Dart                     | D-3029 | in-lb                  | 110           |
| Izod - notched                   | D-256  | ft-lbs/in              | 2.4           |
| Tensile Strength                 | D-638  | psi                    | 3,200         |
| Tensile Modulus                  | D-638  | psi (10 <sup>5</sup> ) | 2.8           |
| Elongation                       | D-638  | %                      | 55            |
| Flexural Strength                | D-790  | psi                    | 6,200         |
| Flexural Modulus                 | D-790  | psi (10 <sup>5</sup> ) | 2.8           |
| <b>Thermal Properties</b>        |        |                        |               |
| Heat Distortion - Annealed       | D-648  | °F                     | 199           |
| Vicat Softening                  | D-1525 | °F                     | 212           |
| <b>Other Physical Properties</b> |        |                        |               |
| Gloss                            | D-523  | 60°                    | 63            |
| Density                          |        | g/cm <sup>3</sup>      | 1.04          |
| Linear Shrinkage                 | D-955  | in/in                  | .004 - .008   |
| Moisture                         |        | %                      | <0.1          |

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