

## Impact Polystyrene

### FEATURES

- High Impact
- High Flow
- Easy Processing
- High Productivity
- FDA: 21 CFR 177.1640

### APPLICATIONS

Injection molding, Thin wall devices, Intricate molds, Telephone devices, Yogurt cups, Toys, Compounds & Master Batch

### PROPERTIES

|                                 | ENGLISH UNIT | TYPICAL VALUES | S.I. UNITS | TYPICAL VALUES | ASTM  |
|---------------------------------|--------------|----------------|------------|----------------|-------|
| <b>PHYSICAL</b>                 |              |                |            |                |       |
| Specific Gravity                | -            | 1.05           | -          | 1.05           | D792  |
| Melt Flow Rate (G-200°C/5kg)    | g/10 min     | 16             | g/10 min   | 16             | D1238 |
| Mold Shrinkage                  | in/in        | 4E-03          | mm/mm      | 4E-03          | D955  |
| <b>MECHANICAL</b>               |              |                |            |                |       |
| Tensile Strength, Yield         | psi          | 2,400          | MPa        | 17             | D638  |
| Tensile Strength, Break         | psi          | 2,000          | MPa        | 14             | D638  |
| Break Elongation                | %            | 50             | %          | 50             | D638  |
| Flexural Modulus                | psi          | 290,000        | MPa        | 1,999          | D790  |
| <b>IMPACT RESISTANCE</b>        |              |                |            |                |       |
| Notched Izod Impact (0.500 in)  | ft-lb/in     | 1.50           | J/m        | 80.1           | D256  |
| Notched Izod Impact (0.125 in)  | ft-lb/in     | 1.75           | J/m        | 93.4           | D256  |
| <b>THERMAL</b>                  |              |                |            |                |       |
| HDT @ 264 psi (unannealed)      | °F           | 156            | °C         | 69             | D648  |
| Vicat Softening Temperature     | °F           | 172            | °C         | 78             | D1525 |
| <b>IGNITION CHARACTERISTICS</b> |              |                |            |                |       |
| Flammability 0.060 in           | -            | HB             | -          | HB             | UL 94 |

.Typical Values represent average laboratory values and are intended as guides only, not as specific specification limits.

.Properties designated in this standard have been determined in accordance with the current issues of the specified testing methods.

.All molded samples were an 1/8 inch (3.2 mm) thick unless noted

### AVAILABILITY

Resirene's styrenic resins are available in bulk, 25 kg bags (55 lbs), and 500 - 750 kg boxes (1,100 - 1,652 lbs).

### FDA

2210 complies with the specifications contained in U.S.A. Food and Drug Administration (FDA) regulation 21 CFR 177.1640 for polystyrene and rubber-modified polystyrene, and thus may be used in the United States as an article or a component of an article intended for use in contact with food, subject to any limitations described in the regulations.

### ENVIRONMENTAL

Resirene's materials are biological and chemically inert. It is recommended to recycle 2210. If you require dispose it follow indications established by government laws, related norms and the material safety data sheet.

### MOLDING CONDITIONS

In order to obtain the best appearance in molded parts, it is recommended a highly polished mold, with such polished it can be obtained high gloss parts. In general, Mold control temperature does not affect the material neither its performance.

These conditions may vary from a molding machine to another, but following conditions are suggested for a start-up approach.

|                                 | START POINT     | RANGE                         |
|---------------------------------|-----------------|-------------------------------|
| Melt Temperature                | 410 °F (210 °C) | 392 - 446 °F - (200 - 230 °C) |
| Mold Temperature                | 120 °F (49 °C)  | 100 - 180 °F - (38 - 82 °C)   |
| Maximum Recommended Temperature | 464 °F (240 °C) |                               |

**WARNING:** As most of plastics materials, combustion of this material may cause hazardous fumes and gases, as well as situations that could be dangerous for health, specially in closed places. It should be noted that excessive heating or too long residence times may cause discoloration, degradation or yellowing.

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