

HI650

High Impact Polystyrene (HIPS) / High Impact Injection

PRODUCT DESCRIPTION

HI650 is a high impact polystyrene resin with high impact resistance and high flow ability. It is designed for injection molding processing such as appliance & electronic parts, housewares, sanitary ware, injection parts.

INDUSTRY

- Appliance & Electronic Parts
- Housewares
- Sanitary ware

PRODUCT FEATURE

- High Impact Resistance
- High Flow Ability
- Good Stiffness

REGULATION COMPLIANCE

- FDA US 21 CFR 177.1640
- Commission Regulation (EU) No. 10/2011
- RoHS Directive 2011/65/EU
- REACH Regulation (EC) No. 1907/2006
- UL Yellow Card: E132283

| PHYSICAL PROPERTY | TEST METHOD | UNIT | VALUE |
|--|-------------|---------------------|-------------|
| Melt Flow Rate (200°C/5 kg) | ASTM D1238 | g/10 min | 8.0 |
| Density (23°C) | ASTM D792 | g/cm ³ | 1.04 |
| Mold Shrinkage | IRPC | % | 0.4 – 0.6 |
| MECHANICAL PROPERTY | | | |
| Tensile Strength at Yield (3.2 mm, 5 mm/min) | ASTM D638 | kgf/cm ² | 280 |
| Tensile Strength at Break (3.2 mm, 5 mm/min) | ASTM D638 | kgf/cm ² | 280 |
| Elongation at Break (3.2 mm, 5 mm/min) | ASTM D638 | % | 55 |
| Tensile Modulus (3.2 mm, 1 mm/min) | ASTM D638 | kgf/cm ² | 23,000 |
| Flexural Strength (3.2 mm, 1.3 mm/min) | ASTM D790 | kgf/cm ² | 450 |
| Flexural Modulus (E-Modulus, 3.2 mm, 1.3 mm/min) | ASTM D790 | kgf/cm ² | 24,000 |
| Izod Notched Impact Strength (3.2 mm, 23°C) | ASTM D256 | kgf-cm/cm | 11 |
| HARDNESS PROPERTY | | | |
| Rockwell Hardness (3.2 mm) | ASTM D785 | L-Scale | 79 |
| THERMAL PROPERTY *Annealed | | | |
| Heat Distortion Temperature (3.2 mm, 18.6 kgf/cm ²)* | ASTM D648 | °C | 89 |
| Vicat Softening Temperature (3.2 mm, 1 kg, 50 °C/h)* | ASTM D1525 | °C | 96 |
| Flammability (E132283) | UL94 | - | HB (1.5 mm) |

Conversion (1 kgf/cm² = 0.098 MPa | 1 kgf-cm/cm = 9.8 J/m)

Remark: The values presented above are typical laboratory, not to be construed as specifications and may vary within moderate ranges. The applicability or accuracy of this information or the suitability of our products cannot be guaranteed because users' conditions of use are beyond our control.

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PROCESSING TECHNIQUE

| | |
|----------------------|-----------------------------------|
| Cylinder Temperature | 180 – 240 °C |
| Mold Temperature | 50 – 80 °C |
| Injection Pressure | 30 – 80 % of maximum pressure |
| Holding Pressure | Relative to injection pressure |
| Back Pressure | 0 – 20% of maximum pressure |
| Injection Speed | Low to medium of maximum pressure |

*However, the actual processing conditions depend on mold design, power of machine, equipment and other environments.

PRODUCT PACKAGING

- 25 kg loose bag
- 25 kg stretch wrap on palletized
- Jumbo bag

For further information, contact IRPC's Sales representative.

STORAGE

The resin should be stored in a dry location with good housekeeping practices during storage, transferring and handling. Process enclosures and adequate ventilation should be used to avoid excessive dust accumulation. Resin should be protected from direct sunlight, temperatures above 38°C (100°F) and high atmospheric humidity during storage. Higher storage temperatures may reduce the storage time. The container should be kept closed to prevent contamination. For the additional recommended storage conditions, please refer to SDS.

SAFETY

This product is not classified as hazardous material for more information please refer to safety data sheet.

RECYCLING

It is an undisputed fact that the product can be recycled or disposed of without any problem.

DISCLAIMER

The data indicated above are the results of our investigations, knowledge and correspond to the state of the art as of the date of publication and the data refer to the state of the laws at the date of issue and this information expires after a break in delivery lasting more than 12 months or in case of regulatory changes. This statement is not intended and should not be construed as specification, warranty or representation of any sort for which IRPC would be legal responsibility. The applicability or the accuracy of this statement or the suitability of our products cannot be guaranteed because the conditions of use on the part of our users are beyond our control. IRPC gives no guarantees or makes no warranties which extend beyond the description above herein. Nothing herein shall constitute any implied guaranty or warranty of merchantability or fitness for a particular purpose. In the case that IRPC's products are used in combination with other materials, no liability can be accepted. When not utilized in combination with any third-party products, the information included above refers only to our products. Please ask IRPC for a new information if needed. All terms and conditions regarding the supply of IRPC's products shall be subject to IRPC's Policy, in the case of a dispute, the Company's decision is final and is not subject to any appeal.