

DIAMOND HI-800 (H.G)

Characteristics:

- High flow, Superior heat characteristics,
- Better mold capability, Good strength,
- Good practical toughness,
- Excellent mold release behavior.

Processing:

- Injection Molding Grade

Applications:

- Air conditioner grills.
- TV cabinets, Cosmetic packing parts
- Stationery products and thin wall molding.

Material Status :

| TYPICAL PROPERTIES | TEST METHOD | UNIT | VALUES |
|--------------------------------------|-------------|---------------------|--------|
| Mechanical Properties | | | |
| Tensile Strength at Yield / at break | ASTM D-638 | kgf/cm ² | 250 |
| Tensile Modulus | ASTM D-638 | kgf/cm ² | 12000 |
| Tensile Elongation | ASTM D-638 | % | 50 |
| Flexural Strength | ASTM D-790 | kgf/cm ² | 450 |
| Flexural Modulus | ASTM D-790 | kgf/cm ² | 16000 |
| Izod Impact Strength | ASTM D-256 | kgf-cm/cm | 10 |
| Gardner Falling Dart | ASTM D-1709 | In-lb | 156 |
| Thermal Properties | | | |
| Vicat Softening Temp | ASTM D-1525 | °C | 95 |
| Heat Distortion Temp | ASTM D-648 | °C | 85 |
| General Properties | | | |
| Melt Flow Rate MFR 200/5 | ASTM D-1238 | gm/10 min | 8.0 |
| Processing | | | |
| Specific Gravity | ASTM D-792 | 23/23 °C | 1.05 |
| Miscellaneous Properties | | | |
| Gloss | ASTM D-523 | | 80 |
| Water Absorption | | % | <0.1 |
| Moisture Adsorption (23 C/50% r.h) | | % | <0.1 |

Product Description

Diamond HI-800(H.G) is a High Impact Polystyrene grade with Opaque & matt finish surface. It gives excellent mechanical and heat resistance properties while providing with easy process ability and molding applications.

Processing

Although Polystyrene HI-800(H.G) can be processed by any method applicable to polystyrene based plastic, it is best suitable for injection molding. The melt temperatures should not exceed

Product Safety

During processing of Polystyrene HI-800(H.G), small quantity of Styrene Monomer may be released into the atmosphere. At styrene vapor concentrations below 20 ppm, no negative health effects are expected. In our experience, the concentration of styrene does not exceed 1 ppm in good ventilate workplace.

**Form supplied &
Storage**

Polystyrene HI-800(H.G) is supplied as cylindrical shaped granules It has to be kept in its original containers in a dry, cool place, Avoid direct exposure to sunlight. Diamond HI-800(H.G) can also be stored in silos.

Food Legislation

If used unmodified and under appropriated processing conditions, Polystyrene HI-800 (H.G) conforms with FDA title 21 CFR section 177.1640 regarding the use of in food contact articles. Diamond Polystyrene is also approved by PCSIR (Pakistan Council of Scientific & Industrial Research).

Environmental

Diamond polystyrene resins can be recycled, incinerated or disposed off in landfill without detriment to the environment. Adequate ventilation should be used during processing. Where recycling of Diamond Polystyrene is not possible, disposal to landfill or incineration in accordance with all applicable government laws and regulations is recommended. Generally speaking, in the environment lost pellets are not a problem except under unusual circumstances – when they enter the Marine environment. They are inert and benign in terms of their physical environmental impact, but if ingested by waterfowl or aquatic life, they may mechanically cause adverse effects. Spills should be minimized and they should be cleaned up when they happen. Plastics should not be discarded into the Ocean or any other body of water.

Note:

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