Diamond Polystyrene

Pak Petrochemical Industries (Pvt.) Ltd

HIGH IMPACT POLYSTYRENE (HIPS)

DIAMOND HI-800

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
- Stationary 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/cm²	157
Tensile Elongation	ASTM D-638	%	73
Flexural Strength	ASTM D-790	kgf/cm²	306
Izod Impact Strength	ASTM D-256	Kgf-cm/cm	15.16
Gardner Falling Dart	ASTM D-256	In-lb	113
Thermal Properties			
Vicat Softening Temp	ASTM D-1525	^{0}C	93
Heat Distortion Temp	ASTM D-648	^{0}C	83
General Properties			
Melt Flow Rate MFR 200/5	ASTM D-1238	gm/10 min	12.0
Processing			
Specific Gravity	ASTM D-792	23/23^{0}C	1.04
Miscellaneous Properties			
Water Absorption		%	<0.1
Moisture Adsorption (23 C/50% r.h)		%	<0.1

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Product Description	Diamond HI-800 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 can be processed by any method applicable to polystyrene based plastic, it is best suitable for injection molding. The melt temperatures should not exceed 260 ^{0}C.
Product Safety	During processing of Polystyrene HI-800, 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 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 can also be stored in silos.
Food Legislation	If used unmodified and under appropriated processing conditions, Polystyrene HI-800 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 invert 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 Ocean or any other body of water.

Note:

The information & recommendations in this publications are, best of our knowledge, reliable, suggestions concerning used or applications are only the opinion of Pak Petrochemical Industries (Pvt.) Ltd. and users should perform their own test to determine the suitability of these products for their own particular purposes. However, because of numerous factors affecting results, Pak Petrochemical MAKES NO WARRANT OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING THOSE OF MANUFACTURING AND FITNESS FOR PURPOSE, other than that the material conforms to the applicable current standard specification statement herein, therefore should not be construed as representations or warranties.

"Committed to Supply Quality Products"

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