

# Pak Petrochemical

Industries (Pvt.) Ltd

**HIGH IMPACT** POLYSTYRENE (HIPS)

## **DIAMOND HI-800 (H.G)**

### **Characteristics:**

- o High flow, Superior heat characteristics,
- o Better mold capability, Good strength,
- o Good practical toughness,
- Excellent mold release behavior & brilliant process ability properties during molding.

## **Processing:**

O Injection Molding Grade

o Container for cosmetic Products Stationery Products, Exhaust Fans Grills, Washing Parts and sanitary products etc.

Material Status

TYPICAL PROPERTIES	TEST METHOD	UNIT	VALUES
Mechanical Properties			
Tensile Strength at Yield / at break	ASTM D-638	kgf/cm <sup>2</sup>	150
Tensile Modulus	ASTM D-638	kgf/cm <sup>2</sup>	12000
Tensile Elongation	ASTM D-638	%	40
Flexural Strength	ASTM D-790	kgf/cm <sup>2</sup>	300
Flexural Modulus	ASTM D-790	kgf/cm <sup>2</sup>	16000
Izod Impact Strength	ASTM D-256	kg-cm/cm	11
Gardner Falling Dart	ASTM D-5420	In-lb	113
Thermal Properties			
Vicat Softening Temp	ASTM D-1525	oC	90
Heat Deflection Temp	ASTM D-648	°C	80
General Properties			
Melt Flow Rate MFR 200/5	ASTM D-1238	gm/10 min	11
Processing			
Specific Gravity	ASTM D-792	23/23 °C	1.04
Miscellaneous Properties			
Gloss	ASTM D-523		70

















**Applications:** 



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**Product Description** 

Diamond HI-800 (H.G) is a High Impact Polystyrene grade with Opaque & Glossy 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 260 C.

**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. Adequate ventilation should be used during processing. Diamond Polystyrene must not be dispose of to landfill or incineration as per government laws and regulations.

#### Note:

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