

# Diamond HI-800

High Impact Polystyrene

Pak Petrochemical Industries (Pvt.) Ltd.

## Message:

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.

### Characteristics:

High flow, Superior heat characteristics,

Better mold capability, Good strength

Good practical toughness

Excellent mold release behavior

### Applications:

Air conditioner grills.

TV cabinets, Cosmetic packing parts

Stationary products and thin wall molding.

General Information			
Features	Impact resistance, high		
	Recyclable materials		
	Workability, good		
	Good formability		
	Good strength		
	High liquidity		
	Heat resistance, high		
	Good toughness		
	Compliance of Food Exposure		
	Good demoulding performance		
Uses	Cosmetic Packaging		
	Thin wall parts		
	Home appliance components		
	Stationery		
Agency Ratings	FDA 21 CFR 177.1640		
Appearance	Opacity		
	Rough surface polishing		
Forms	Particles		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity <sup>1</sup>	1.04	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	12	g/10 min	ASTM D1238
Water Absorption			

23°C, 24 hr, 50% RH	< 0.10	%	
Balance	< 0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield	15.4	MPa	ASTM D638
Fracture	15.4	MPa	ASTM D638
Tensile Elongation (Break)	73	%	ASTM D638
Flexural Strength	30.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Unnotched Izod Impact	150	J/m	ASTM D256
Dart Drop Impact	12.8	J	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	83.0	°C	ASTM D648
Vicat Softening Temperature	93.0	°C	ASTM D1525
Injection	Nominal Value	Unit	
Processing (Melt) Temp	< 260	°C	
NOTE			
1.	23°C		

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#### Recommended distributors for this material

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