

**GENERAL PURPOSE
POLYSTYRENE
(GPPS)**

DIAMOND GP-525

Characteristics:

- Blue tinted,
- Excellent Clarity,
- Good Flow, Low Volatility
- (Below 1000 ppm)

Processing:

- Injection Molding

Applications:

House ware, Containers, Plastic refrigerator parts, Toys and Lamp-shield, Drinking cups, Audio & Video cassette, Stationery items, CD casing, Plastic hangers and Cosmetic casings.

Material Status :

TYPICAL PROPERTIES	TEST METHOD	UNIT	VALUES
Mechanical Properties			
Tensile Strength at Yield / at break	ASTM D-638	kgf/cm ²	425
Tensile Modulus	ASTM D-638	kgf/cm ²	30000
Tensile Elongation	ASTM D-638	%	1.5
Flexural Strength	ASTM D-790	kgf/cm ²	750
Flexural Modulus	ASTM D-790	kgf/cm ²	34000
Izod Impact Strength	ASTM D-256	Kg-cm/cm	1.6
Thermal Properties			
Vicat Softening Temp	ASTM D-1525	°C	95
Heat Distortion Temp	ASTM D-648	°C	90
General Properties			
Melt Flow Rate MFR 200/5	ASTM D-1238	gm/10 min	7
Processing			
Specific Gravity	ASTM D-792	23/23°C	1.05
Miscellaneous Properties			
Water Absorption		%	<0.1
Moisture Adsorption (23°C/50% r.h)		%	<0.1

Product Description	Polystyrene is a highly transparent material. It gives excellent mechanical and heat resistance properties while providing with easy process ability and molding applications.
Processing	Although Polystyrene GP-525 can be processed by any method applicable to polystyrene based plastic, it is best suitable for injection molding and extrusion molding. The melt temperatures should not exceed 260 °C.
Product Safety	During processing of Polystyrene GP-525, 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 GP-525 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. PS GP-525 can also be stored in silos.
Food Legislation	If used unmodified and under appropriated processing conditions, Polystyrene GP-525 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.

Note:

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