

**GENERAL PURPOSE POLYSTYRENE (GPPS)**

**DIAMOND GP-500N**

**Characteristics:**

- Natural Tinted,
- Excellent Clarity, Good Strength
- Superior Mold Capability, Good Flow, Low Volatility, (Below 1000 ppm)
- Brilliant Process Ability during Molding

**Processing:**

- Injection Molding

**Applications:**

House ware, Containers, Toys, Drinking cups, Table ware, Optical parts, Plastic bangles, Plastic time pieces parts, Cosmetic packing parts, Plastic refrigerator components, Stationery products, and material are very useful for thin wall molding.

Material Status :

TYPICAL PROPERTIES	TEST METHOD	UNIT	VALUES
<b>Mechanical Properties</b>			
Tensile Strength at Yield / at break	ASTM D-638	kgf/cm <sup>2</sup>	390
Tensile Modulus	ASTM D-638	kgf/cm <sup>2</sup>	30000
Tensile Elongation	ASTM D-638	%	1.2
Flexural Strength	ASTM D-790	kgf/cm <sup>2</sup>	700
Flexural Modulus	ASTM D-790	kgf/cm <sup>2</sup>	34000
Izod Impact Strength	ASTM D-256	Kg-cm/cm	1.6
<b>Thermal Properties</b>			
Vicat Softening Temp	ASTM D-1525	°C	97
Heat Distortion Temp	ASTM D-648	°C	88
<b>General Properties</b>			
Melt Flow Rate MFR 200/5	ASTM D-1238	Gm / 9 min	9
<b>Processing</b>			
Specific Gravity	ASTM D-792	23/23°C	1.05
<b>Miscellaneous Properties</b>			
Water Absorption		%	<0.1
Moisture Adsorption (23 C/50% r.h)		%	<0.1

<b>Product Description</b>	Polystyrene is a highly transparent material. It gives excellent mechanical and heat resistance properties while providing with easy process ability and molding applications.
<b>Processing</b>	Although Polystyrene GP-500N 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.
<b>Product Safety</b>	During processing of Polystyrene GP-500N, 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.
<b>Form supplied &amp; Storage</b>	Polystyrene GP-500N 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-500N can also be stored in silos.
<b>Food Legislation</b>	If used unmodified and under appropriated processing conditions, Polystyrene GP-500N 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).
<b>Environmental</b>	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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