

**GENERAL PURPOSE  
POLYSTYRENE  
(GPPS)**

**DIAMOND GP-525(N)**

**Characteristics:**

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

**Processing:**

- Injection Molding

**Applications:**

House ware, Containers, Disposable Cutlery, Plastic Refrigerator Parts, Toys Drinking Cups, Stationery items , CD Casings , Disposable Razors, Plastic Hangers. Water Filter Shell , Tooth Bushes and Cosmetic Casings Auto Parts like Indicators Coves , Head Lamp covers , LED light cover etc.

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> | 400    |
| Tensile Elongation                   | ASTM D-638  | %                   | 1.2    |
| Flexural Strength                    | ASTM D-790  | kgf/cm <sup>2</sup> | 750    |
| <b>Thermal Properties</b>            |             |                     |        |
| Vicat Softening Temp                 | ASTM D-1525 | °C                  | 95     |
| Heat Deflection Temp                 | ASTM D-648  | °C                  | 85     |
| <b>General Properties</b>            |             |                     |        |
| Melt Flow Rate MFR 200/5             | ASTM D-1238 | gm/10 min           | 7      |
| <b>Processing</b>                    |             |                     |        |
| Specific Gravity                     | ASTM D-792  | 23/23°C             | 1.05   |

|                                    |                                                                                                                                                                                                                                                                                                            |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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-525N 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.                                                                                      |
| <b>Product Safety</b>              | During processing of Polystyrene GP-525N, 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-525N 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-525N can also be stored in silos.                                                                                              |
| <b>Food Legislation</b>            | If used unmodified and under appropriated processing conditions, Polystyrene GP-525N 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. 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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