

**GENERAL PURPOSE
POLYSTYRENE
(GPPS)**

DIAMOND GP-525 X

Characteristics:

- No internal Lubricant
- Blue Tined,
- Excellent Clarity,
- Good Flow, Low Volatility
- (Below 1000 ppm)

Processing:

- Extrusion Grade
- Injection Grade

Applications:

This grade is specifically suited for Extruded Polystyrene (XPS) production application as it comes without any lubricant to give end product a unified cell structure. Moreover, it can also be used for general injection moulding.

Material Status :

| TYPICAL PROPERTIES | TEST METHOD | UNIT | VALUES |
|--------------------------------------|-------------|---------------------|--------|
| Mechanical Properties | | | |
| Tensile Strength at Yield / at break | ASTM D-638 | kgf/cm ² | 457 |
| Tensile Modulus | ASTM D-638 | kgf/cm ² | 28000 |
| Tensile Elongation | ASTM D-638 | % | 2 |
| Flexural Strength | ASTM D-790 | kgf/cm ² | 895 |
| Flexural Modulus | ASTM D-790 | kgf/cm ² | 32000 |
| Izod Impact Strength | ASTM D-256 | Kg-cm/cm | 1.55 |
| Thermal Properties | | | |
| Vicat Softening Temp | ASTM D-1525 | °C | 101 |
| Heat Distortion Temp | ASTM D-648 | °C | 92 |
| General Properties | | | |
| Melt Flow Rate MFR 200/5 | ASTM D-1238 | gm/10 min | 6.0 |
| 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 X can be processed by any method applicable to polystyrene based plastic, it is best suitable for Extrusion. The melt temperatures should not exceed 260 °C.

Product Safety During processing of Polystyrene GP-525 X, 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 X 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 X can also be stored in silos.

Food Legislation If it used unmodified and under appropriated processing conditions, Polystyrene GP-525 X 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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