

LGG 105 (GPPS)

Description:

Medium Flow & Medium blue tinge

Application:

Stationery, Disposables, Wall clocks, Novelties, Bead bangles, CD case, Imitation Jewellery etc.,

| Properties | Test Method | Test Condition | Unit | Typical Value |
|------------------------------------|-----------------|-------------------|----------------------|---------------|
| Physical | | | | |
| Specific Gravity | ASTM D 792 | - | - | 1.02 |
| Shrinkage | ASTM D 955 | - | % | 0.4-0.6 |
| Rheological | | | | |
| Melt Flow Index | ASTM D 1238 (G) | 200 °C / 5 kg | gms / 10min | 9.0 |
| Thermal & Optical | | | | |
| Vicat Softening point | ASTM D 1525 | 120 °C / Hr, 1 kg | °C | 95 |
| Heat Deflection temperature | ASTM D 648 | 1.82 Mpa | °C | 85 |
| Flammability | UL 94 | 3.2 mm | Rating | HB |
| Transmittance | ASTM D 1003 | - | % | 95 |
| Mechanical | | | | |
| Tensile Strength @ Yield, 3.2 mm | ASTM D 638 | 6.3 mm / min | Kg / cm ² | 430 |
| Tensile Elongation @ Break, 3.2 mm | ASTM D 638 | 6.3 mm / min | Kg / cm ² | 2 |
| Flexural Strength, 3.2 mm | ASTM D 790 | 1.3 mm / min | Kg / cm ² | 850 |
| Flexural Modulus, 3.2 mm | ASTM D 790 | 1.3 mm / min | Kg / cm ² | 34000 |
| Izod Impact Strength (Notched) | ASTM D 256 | 6.4 mm | Kg-cm / cm | 1.1 |
| Rockwell Hardness | ASTM D 785 | - | R-Scale | 115 |
| Processing Conditions | | | | |
| Melt Temperature | - | - | °C | 180 - 220 |
| Mold Temperature | - | - | °C | 45 - 60 |
| Pre-drying temperature | - | - | - | Not Required |

Note:

- The above Typical values in this Product data sheet are intended to serve for material selection purpose only
- Values given should not be interpreted as specification and not be used for part or tool design.
- All properties, except melt flow rate are measured on injection molded specimens and after 48 hours storage at 23 °C, 50% relative humidity.
- The design and Characteristics of the product manufactured out of LGPI material are beyond our control & expertise, therefore, LGPI shall not own the responsibility for any consequential damage incurred by the Purchaser.

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Processing guidelines:

- LGG 105 can be Injection molded under different conditions depending upon the size of the machine, mold size & shape of the components.
- Pre-drying normally not required.

Recommended temperatures:

- Melt Temperature profile: 180-220 °C
- Mould Temperature: 45-60 °C (Optimization of condition gives the best results)

Molding at a very low or very high temperature conditions than required, may cause degradation.

Packing:

Supplied as cylindrical shaped granules in 25 kg PP laminated woven sack bags.

Storage & Handling precautions:

LGPI recommends the storage of Polystyrene in dust free environment, dry & cool place in a shade an avoid direct exposure to sunlight

Product Safety:

Processing may release fumes, which may be irritating. Sufficient ventilation should be provided in the processing area. If it causes eye discomfort, use a full-face respirator.

Handling & fabrication of plastic resin may result in the generation of dust. Dust resulting from sawing, filing & sanding of plastic parts in post molding operations may cause irritation to eyes. In dusty atmospheres, use an approved dust respirator.