



## Technical Datasheet

### RM25CG Polysure PP Random Copolymer

### Injection Molding

#### Product Characteristics:

Polysure RM25CG is a Polypropylene Random Copolymer, produced by latest Spheripol – II Technology & primarily suitable for Injection Molding process. This grade is suitable for making medical plastic products demanded gamma-ray sterilization. It has excellent processability and products made with the grade offer exceptional clarity, low warpage, low cycle time and good dimensional stability.

#### Recommended Applications:

Healthcare Applications; Medical Devices, Laboratory wares and Diagnostic Tools; Syringes

#### Typical Properties:

| Sr. No. | Property                                     | Test Method                | Unit     | Value* |
|---------|----------------------------------------------|----------------------------|----------|--------|
| 1       | Melt Flow Index (230°C & 2.16 kg)            | ASTM D1238                 | g/10 min | 25     |
| 2       | Tensile Strength at Yield, Type I Specimen   | ASTM D638<br>(50 mm / min) | MPa      | 30     |
| 3       | Tensile Elongation at Yield, Type I Specimen |                            | %        | 12     |
| 4       | Flexural Modulus (1% Secant)                 | ASTM D790A                 | MPa      | 1050   |
| 5       | Notched Izod Impact Strength (23°C)          | ASTM D256A                 | J/m      | 55     |
| 6       | Vicat Softening Point (10 N)                 | ASTM D1525                 | °C       | 128    |
| 7       | Heat Deflection Temperature (0.455 MPa)      | ASTM D648                  | °C       | 75     |
| 8       | Haze (1mm Injection Molded Disc)             | ASTM D1003                 | %        | 9      |

*\*All the mechanical properties are tested on Injection molded Test Specimen, prepared in accordance with ASTM D4101*

#### Processing Guidelines:

- Barrel Temperature : 190 - 220°C
- Mold Temperature : 30 - 40°C

#### Storage & Handling:

Bags should be stored in dry & dust free environment at temperature below 50°C and Prevent from direct exposure to sunlight & heat to avoid quality deterioration.

#### Regulatory Requirements:

RM25CG to be manufactured complying the requirements specified in IS 10910 on "Specification for Polypropylene & its Copolymers for safe use in contact with Foodstuff, Pharmaceutical & Drinking water". Furthermore, the Additives added in this grade formulation compiles to the "Positive list of constituents for Polypropylene, Polyethylene and their Copolymers for its safe use in contact with Foodstuffs & Pharmaceuticals" as laid down under IS 16738:2018. In general, the additives & constituents used in the grade are in line with requirement laid down under FDA: CFR Title 21,177.1520, Olefin Polymers.

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