

## Technical Datasheet

### R03RR1 Polysure PP Homopolymer

Raffia

#### Product Characteristics:

Polysure R03RR1 is a Polypropylene Homopolymer, produced by latest Spheripol – II Technology & primarily suitable for Raffia tape extrusion process. R03RR1 combines extremely low water carry-over with exceptional processability, excellent tenacity & elongation for the production of tapes.

#### Recommended Applications:

Woven sacks, Cement bag, Food grain bag, Sugar packaging bag, Leno bag, Box Strapping, Monofilaments, Sheet Extrusion & FIBC

#### Typical Properties:

| Sr. No. | Property                                     | Test Method                | Unit     | Value* |
|---------|----------------------------------------------|----------------------------|----------|--------|
| 1       | Melt Flow Index (230°C & 2.16 kg)            | ASTM D1238                 | g/10 min | 3.4    |
| 2       | Tensile Strength at Yield, Type I Specimen   | ASTM D638<br>(50 mm / min) | MPa      | 36     |
| 3       | Tensile Elongation at Yield, Type I Specimen |                            | %        | 11     |
| 4       | Flexural Modulus (2% Secant)                 | ASTM D790A                 | MPa      | 1550   |
| 5       | Notched Izod Impact Strength (23°C)          | ASTM D256A                 | J/m      | 40     |
| 6       | Vicat Softening Point (10 N)                 | ASTM D1525                 | °C       | 154    |
| 7       | Heat Deflection Temperature (0.455 MPa)      | ASTM D648                  | °C       | 100    |

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

#### Processing Guidelines:

- Barrel Temperature : 180 - 260°C
- Die Temperature : 250 - 270°C
- Quench Temperature : 30 - 40°C
- Oven Temperature : 155 - 160°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.

This grade meets the requirements of IS 10951:2020 - Specification for Polypropylene Material for Moulding and Extrusion.

#### Regulatory Requirements:

R03RR1 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.

Updated as of July 2025

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