



## Topester™ 455RM

### Copolyester Thermoplastic Elastomer

#### Product Description

Topester™ 455RM is a Copolyester Thermoplastic Elastomer (TPC) resin in the family of Thermoplastic Elastomer (TPE). This material can be widely used in automotive, industrial, wire & cable, consumer, polymer modification, etc. This grade is designed for extrusion and injection molding. It is completely recyclable.

#### General

|            |                  |                  |
|------------|------------------|------------------|
| Appearance | √Natural Color   |                  |
| Feature    | √Heat Resistance | √Good Resilience |
| Compliance | √RoHS            | √REACH           |
| Form       | √Pellet          |                  |
| Packaging  | √25kg/bag        |                  |

#### Technical Property

| Typical Properties                      | Typical Value | Unit              | Test Method |
|---|---------------|-------------------|-------------|
| Hardness                                | 55            | Shore D           | ISO 868     |
| Density                                 | 1.19          | g/cm <sup>3</sup> | ISO 1183    |
| Melt Index (230°C x 2.16kg)             | 10            | g/10min           | ISO 1133    |
| Flexural Modulus                        | 220           | MPa               | ISO 178     |
| Tensile Stress at break                 | 37            | MPa               | ISO 527     |
| Elongation at Break                     | 590           | %                 | ISO 527     |
| Charpy Notched Impact Strength at 23°C  | No break      | KJ/m <sup>2</sup> | ISO 179     |
| Charpy Notched Impact Strength at -30°C | No break      | KJ/m <sup>2</sup> | ISO 179     |
| Melting Temperature                     | 204           | °C                | ISO11357    |
| Vicat Softening Temperature, 10N        | 180           | °C                | ISO 306     |
| Volume Resistivity                      | 4.0E+13       | Ohm*cm            | IEEC 60093  |
| Water Absorption, 24hr                  | 0.4           | %                 | ISO 62      |
| Shrinkage                               | 1.5           | %                 | ISO 294     |

The data are not to be defined as specifications

**Processing Information**

| <b>Extrusion</b>         | <b>Typical Value</b> |
|--------------------------|----------------------|
| Rear Temperature         | 180-200°C            |
| Middle Temperature       | 210-240°C            |
| Front Temperature        | 210-240°C            |
| Head Temperature         | 210-240°C            |
| Die Temperature          | 210-240°C            |
| <b>Injection Molding</b> | <b>Typical Value</b> |
| Rear Temperature         | 180-200°C            |
| Middle Temperature       | 210-240°C            |
| Front Temperature        | 210-240°C            |
| Nozzle Temperature       | 210-240°C            |
| Mold Temperature         | 20-60°C              |

**Notes:**

- 1) The product is incompatible with PVC. Purge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) Polyethylene (PE) or Polypropylene (PP).
- 2) Color concentrate with Copolyester based carrier is recommended.
- 3) Drying is required for 3-5 hours at 110°C

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Rev.2016-05-30