

Technical Data Sheet

Circulen HP456J

Polypropylene, Homopolymer

Product Description

Circulen HP456J is a circular polymer, which contains building blocks from non-mechanical recycling processes converting renewables and organic or plastic wastes into new cracker feedstock.

The content of recycled cracker feedstock is certified by mass balance.

Circulen HP456J is a polypropylene homopolymer used for extrusion and thermoforming applications. *Circulen* HP456J is formulated with a low water-carry-over additive package. Typical applications are monofilaments, ropes and tapes.

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|--------------------------|------------------------------------------------------|
| Status | Commercial: Active |
| Availability | Africa-Middle East; Europe |
| Application | Intermediate Bulk Containers; Raffia/Tapes/Strapping |
| Market | Textile |
| Processing Method | Tapes & Raffia |
| Attribute | Homopolymer |

| Typical Properties | Nominal Value | Units | Test Method |
|-----------------------------------------------------------|---------------|-------------------|---------------|
| Physical | | | |
| Melt Flow Rate, (230 °C/2.16 kg) | 3.4 | g/10 min | ISO 1133-1 |
| Density | 0.900 | g/cm ³ | ISO 1183-1 |
| Mechanical | | | |
| Flexural Modulus | 1400 | N/mm ² | ISO 178 |
| Tensile Stress at Break, (23 °C, 50 mm/min) | 23 | N/mm ² | ISO 527-1, -2 |
| Tensile Stress at Yield, (23 °C, 50 mm/min) | 34 | N/mm ² | ISO 527-1, -2 |
| Tensile Strain at Break, (23 °C, 50 mm/min) | 600 | % | ISO 527-1, -2 |
| Tensile Strain at Yield, (23 °C, 50 mm/min) | 11 | % | ISO 527-1, -2 |
| Thermal | | | |
| Vicat Softening Temperature, (A50) | 153 | °C | ISO 306 |
| Deflection Temperature Under Load, (0.45 MPa, Unannealed) | 90 | °C | ISO 75B-1, -2 |