Technical Data Sheet

# *Circulen*Renew C14 EP448T

Polypropylene, Impact Copolymer

## Product Description

*Circulen*Renew C14 EP448T is part of the *Circulen©* product family of circular and sustainable solutions. C*irculen*Renew C14 polymer reduces the carbon footprint as it replaces fossil feedstock through using renewable raw materials made from bio-based waste and residue oils. The renewable content of C*irculen*Renew C14 is measured by an accredited third party laboratory and stated as a parameter on the Certificate of Analysis (CoA).

*Circulen*Renew C14 EP448T is a drop-in solution and therefore doesn't require any adaptation of the existing processing equipment.

*Circulen*Renew C14 EP448T is a nucleated heterophasic copolymer with antistatic additivation used in injection moulding applications.
*Circulen*Renew C14 EP448T has a high flow, good impact/stiffness balance.
*Circulen*Renew C14 EP448T is typically used by customers in opaque containers, housewares, toys and closures.

This grade is not intended for medical and pharmaceutical applications.

| | |
|---|---|
| **Application** | Caps & Closures; Housewares; Opaque Containers; Sports, Leisure & Toys |
| **Market** | Consumer Products; Rigid Packaging |
| **Processing Method** | Injection Molding |
| **Attribute** | Contains Antistat; High Flow; Impact Copolymer; Medium Impact Resistance; Medium Stiffness; Nucleated |

| Typical Properties | Nominal Value | Units | Test Method |
|---|---|---|---|
| **Physical** | | | |
| Melt Flow Rate, (230 °C/2.16 kg) | 48 | g/10 min | ISO 1133-1 |
| Density, (23 °C) | 0.90 | g/cm³ | ISO 1183-1 |
| **Mechanical** | | | |
| Tensile Modulus | 1250 | MPa | ISO 527-1, -2 |
| Tensile Stress at Yield | 27 | MPa | ISO 527-1, -2 |
| Tensile Strain at Break | | % | ISO 527-1, -2 |
| Tensile Strain at Yield | 5 | % | ISO 527-1, -2 |
| **Impact** | | | |
| Charpy Impact Strength - Notched | | | |
| (23 °C, Type 1, Edgewise, Notch A) | 5 | kJ/m² | ISO 179 |
| (0 °C, Type 1, Edgewise, Notch A) | 3.5 | kJ/m² | ISO 179 |
| (-20 °C, Type 1, Edgewise, Notch A) | 2.5 | kJ/m² | ISO 179 |
| **Thermal** | | | |
| Vicat Softening Temperature, (A50) | 151 | °C | ISO 306 |
| Heat Deflection Temperature B, (0.45 MPa, Unannealed) | 90 | °C | ISO 75B-1, -2 |