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