

Technical Data Sheet

Circulen EP540P



Polypropylene, Impact Copolymer

Product Description

Circulen EP540P 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 EP540P is a nucleated heterophasic copolymer, suitable for injection moulding applications. It exhibits a high stiffness combined with a good impact balance.

Circulen EP540P is typically used in luggage, houseware items, containers, caps and closures.

This grade is not intended for medical and pharmaceutical applications.

Status	Commercial: Active
Availability	Africa-Middle East; Europe
Application	Caps & Closures; Housewares; Luggage; Opaque Containers
Market	Consumer Products; Rigid Packaging
Processing Method	Injection Molding
Attribute	Impact Copolymer; Medium Impact Resistance; Medium Stiffness; Nucleated

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (230 °C/2.16 kg)	15	g/10 min	ISO 1133-1
Density	0.90	g/cm ³	ISO 1183-1
Mechanical			
Tensile Modulus	1300	MPa	ISO 527-1, -2
Tensile Stress at Yield	28	MPa	ISO 527-1, -2
Tensile Strain at Break		%	ISO 527-1, -2
Tensile Strain at Yield	6	%	ISO 527-1, -2
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	7	kJ/m ²	ISO 179
(0 °C, Type 1, Edgewise, Notch A)	4.5	kJ/m ²	ISO 179
(-20 °C, Type 1, Edgewise, Notch A)	3	kJ/m ²	ISO 179
Ductile/Brittle Transition Temperature	-45	°C	ISO 6603-2
Hardness			
Ball Indentation Hardness, (H 358/30)	63	MPa	ISO 2039-1
Thermal			
Vicat Softening Temperature, (A50)	151	°C	ISO 306
Heat Deflection Temperature B, (0.45 MPa, Unannealed)	90	°C	ISO 75B-1, -2