

Technical Data Sheet

*Circulen*Renew C14 LD1800S



Low Density Polyethylene

Product Description

*Circulen*Renew C14 LD1800 S is part of the *Circulen*@ product family of circular and sustainable solutions. *Circulen*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 *Circulen*Renew C14 is measured by an accredited third party laboratory and stated as a parameter on the Certificate of Analysis (CoA).

*Circulen*Renew C14 LD1800 S is a drop-in solution and therefore doesn't require any adaptation of the existing processing equipment.

*Circulen*Renew C14 LD1800 S is a low density polyethylene resin used in injection molding and other processing methods like compounding. It exhibits high flowability, good softness, toughness and dimensional stability. *Circulen*Renew C14 LD1800 S is delivered in pellet form and is not additivated.

*Circulen*Renew C14 LD1800 S is used in applications such as toys, caps & closures, engineering parts, and sports and leisure equipment.

*Circulen*Renew C14 LD1800 S is not intended for use in medical and pharmaceutical applications.

This grade is supported for use in drinking water applications.

Application	Caps & Closures; Sports, Leisure & Toys
Market	Consumer Products; Rigid Packaging
Processing Method	Injection Molding
Attribute	Fast Cycle (Production); Good Flexibility; Good Processability; Low Density; Low Temperature Impact Resistance

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (190 °C/2.16 kg)	20	g/10 min	ISO 1133-1
Density	0.917	g/cm ³	ISO 1183-1
Mechanical			
Tensile Modulus	160	MPa	ISO 527-1, -2
Tensile Stress at Yield	8	MPa	ISO 527-1, -2
Environmental Stress Crack Resistance, F ₅₀	1.5	hr	ASTM D1693
Note: Cond. B, 10% Arkopal N100			
Hardness			
Shore Hardness, (Shore D)	45		ISO 868
Ball Indentation Hardness, (H 49/30)	13	MPa	ISO 2039-1
Thermal			
Vicat Softening Temperature, (A/50)	81	°C	ISO 306
Peak Melting Point	106	°C	ISO 11357-3
Processing Parameters			
Melt Temperature	180 - 230	°C	