

## 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.

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

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Melt Flow Rate, (190 °C/2.16 kg)	20	g/10 min	ISO 1133-1
Density	0.917	g/cm <sup>3</sup>	ISO 1183-1
<b>Mechanical</b>			
Tensile Modulus	160	MPa	ISO 527-1, -2
Tensile Stress at Yield	8	MPa	ISO 527-1, -2
Environmental Stress Crack Resistance, F <sub>50</sub>	1.5	hr	ASTM D1693
Note: Cond. B, 10% Arkopal N100			
<b>Hardness</b>			
Shore Hardness, (Shore D)	45		ISO 868
Ball Indentation Hardness, (H 49/30)	13	MPa	ISO 2039-1
<b>Thermal</b>			



Vicat Softening Temperature, (A/50 N)	81 °C	ISO 306
Peak Melting Point	106 °C	ISO 11357-3
<b>Processing Parameters</b>		
Melt Temperature	180 - 230 °C	

### Notes

These are typical property values not to be construed as specification limits.

