

## Technical Data Sheet

### *Circulen 2420D Plus*



Low Density Polyethylene

#### Product Description

*Circulen 2420 D Plus* is a circular polymer, which contains building blocks from non-mechanical recycling processes converting renewables and organic wastes into new cracker feedstock.

The bio content of recycled cracker feedstock is measured and certified on the Certificate of Analysis.

*Circulen 2420 D Plus* is a non-additivated, low density polyethylene. It is characterized by a high melt strength leading to a good bubble stability during blown film extrusion. It is delivered in pellet form.

This product is not intended for use in medical and pharmaceutical applications.

#### Regulatory Status

For regulatory compliance information, see *Circulen 2420D Plus* [Product Stewardship Bulletin \(PSB\) and Safety Data Sheet \(SDS\)](#).

<b>Status</b>	Commercial: Active
<b>Availability</b>	Africa-Middle East; Asia-Pacific; Europe
<b>Application</b>	Agriculture Film; Bags & Pouches; Heavy Duty Packaging; Liner Film; Shrink Film; Stretch Hood
<b>Market</b>	Flexible Packaging
<b>Processing Method</b>	Blown Film
<b>Attribute</b>	General Purpose; Good Processability; Good Tear Strength; Good Toughness

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Melt Flow Rate, (190 °C/2.16 kg)	0.25	g/10 min	ISO 1133-1
Density	0.923	g/cm <sup>3</sup>	ISO 1183-1
<b>Mechanical</b>			
Tensile Modulus	260	MPa	ISO 527-1, -2
Tensile Stress at Yield	10	MPa	ISO 527-1, -2
<b>Film</b>			
Dart Drop Impact Strength, F50	250	g	ASTM D1709
Tensile Strength			
MD	27	MPa	ISO 527-1, -3
TD	25	MPa	ISO 527-1, -3
Tensile Strain at Break			
MD	200	%	ISO 527-1, -3
TD	500	%	ISO 527-1, -3
Coefficient of Friction	>0.8		ISO 8295
<b>Impact</b>			
Failure Energy Film thickness: 70 µm	6.5	J/mm	DIN 53373
<b>Thermal</b>			
Vicat Softening Temperature, (A/50 N)	96	°C	ISO 306

Peak Melting Point	110 °C	ISO 3146
<b>Optical</b>		
Haze, (50 µm)	<14 %	ASTM D1003
Gloss		
(20°)	>15	ASTM D2457
(60°)	>50	ASTM D2457
<b>Additional Information</b>		
Test Specimen	Film	
Film properties tested using 50 µm thickness blown film extruded at a melt temperature of 180°C and a blow-up ratio of 2.5:1.		
<b>Processing Parameters</b>		
Extrusion Temperature	170-220 °C	

**Notes**

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