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).

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

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (190 °C/2.16 kg)	0.25	g/10 min	ISO 1133-1
Density	0.923	g/cm³	ISO 1183-1
Mechanical			
Tensile Modulus	260	MPa	ISO 527-1, -2
Tensile Stress at Yield	10	MPa	ISO 527-1, -2
Film			
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
Impact			
Failure Energy Film thickness: 70 µm	6.5	J/mm	DIN 53373
Thermal			
Vicat Softening Temperature, (A/50 N)	96	°C	ISO 306

Peak Melting Point	110	°C	ISO 3146
Optical			
Haze, (50 µm)	<14	%	ASTM D1003
Gloss			
(20°)	>15		ASTM D2457
(60°)	>50		ASTM D2457
Additional Information			
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.			
Processing Parameters			
Extrusion Temperature	170-220	°C	

Notes

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