# Braskem PE SLL118

#### Linear Low Density Polyethylene

#### Braskem

#### Message:

#### Description:

SLL118 is a Linear Low Density Polyethylene, copolymer of butene-1. Developed for blown film extrusion in blends with polyethylenes. Films obtained with this product show a good processing performance balanced with good optical and mechanical properties as well as sealability. Very low gel amount. It contains antioxidant additives.

The minimum biobased content of this grade is 87%, determined according to ASTM D6866.

#### Applications:

Stretch films; liners; LDPE and HDPE blends and packages for general use. Others applications: blends for irrigation pipes.

Low speed solidification crystal point   Antioxidation   Updatable resources   Compliance of Food Exposure   Packaging   Films   Liming   Mixing   Physical   Density   Densi	General Information				
Antioxidation   Updatable resources   Compliance of Food Exposure	Additive	Antioxidation			
Uses Packaging Films Fil	Features	Low speed solidification crystal point			
Compliance of Food Exposure   Compliance of Food Exposure		Antioxidation			
Packaging           Films           Lining         Mixing           Agency Ratings         FDA 21 CFR 177.1520           Processing Method         Blow film           Physical         Nominal Value         Unit         Test Method           Density         0.916         g/cm³         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16' kg)         1.0         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Tensile Strength         JASTM D882         ASTM D882           MD: Fracture, 38 μm         50.0         MPa         ASTM D882           TD: Fracture, 38 μm         40.0         MPa         ASTM D882           Tensile Elongation         —         ASTM D882           MD: Fracture, 38 μm         1100         %         ASTM D882           TD: Fracture, 38 μm         1400         %         ASTM D882           Flexural Modulus         —         ASTM D790           1% Secant, MD: 38 μm         180         MPa         ASTM D790           1% Secant, TD: 38 μm         200         MPa         ASTM D790           Dent Drop Impact 1         120         g         ASTM D1709		Updatable resources			
Films Lining Mixing  Agency Ratings  FDA 21 CFR 177.1520  Processing Method  Blow film  Physical  Nominal Value  Unit  Test Method  Density  0.916  Qrm³  ASTM D1505  Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)  To 1.0  Nominal Value  Unit  Test Method  ASTM D1238  Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)  To 1.0  Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)  Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)  To 1.0  Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)  ASTM D882  To Fracture, 38 µm  100  Melt Mass Melt Mass Mass Melt Melt Melt Melt Melt Melt Melt Melt		Compliance of Food Exposure			
Films Lining Mixing  Agency Ratings  FDA 21 CFR 177.1520  Processing Method  Blow film  Physical  Nominal Value  Unit  Test Method  Density  0.916  Qrm³  ASTM D1505  Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)  To 1.0  Nominal Value  Unit  Test Method  ASTM D1238  Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)  To 1.0  Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)  Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)  To 1.0  Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)  ASTM D882  To Fracture, 38 µm  100  Melt Mass Melt Mass Mass Melt Melt Melt Melt Melt Melt Melt Melt					
Lining   Mixing	Uses	Packaging			
Agency Ratings         FDA 21 CFR 177.1520           Processing Method         Blow film           Physical         Nominal Value         Unit         Test Method           Density         0.916         g/cm³         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         1.0         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Tensile Strength         ASTM D882         ASTM D882           MD: Fracture, 38 μm         50.0         MPa         ASTM D882           TD: Fracture, 38 μm         40.0         MPa         ASTM D882           MD: Fracture, 38 μm         1100         %         ASTM D882           TD: Fracture, 38 μm         1400         %         ASTM D882           Flexural Modulus         ASTM D882         ASTM D790           1% Secant, MD: 38 μm         180         MPa         ASTM D790           1% Secant, TD: 38 μm         200         MPa         ASTM D790           Dart Drop Impact <sup>1</sup> 120         g         ASTM D7709		Films			
Agency Ratings         FDA 21 CFR 177.1520           Processing Method         Blow film           Physical         Nominal Value         Unit         Test Method           Density         0.916         g/cm³         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         1.0         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Tensile Strength         ASTM D882         ASTM D882           MD: Fracture, 38 µm         50.0         MPa         ASTM D882           Ten: Fracture, 38 µm         40.0         MPa         ASTM D882           Ten: Fracture, 38 µm         1100         %         ASTM D882           MD: Fracture, 38 µm         1400         %         ASTM D882           Flexural Modulus         ASTM D882         ASTM D790           1% Secant, MD: 38 µm         180         MPa         ASTM D790           1% Secant, TD: 38 µm         200         MPa         ASTM D790           Datt Drop Impact <sup>1</sup> 120         g         ASTM D790		Lining			
Processing Method         Blow film           Physical         Nominal Value         Unit         Test Method           Density         0.916         g/cm³         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         1.0         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Tensile Strength         ASTM D882         ASTM D882           MD: Fracture, 38 μm         40.0         MPa         ASTM D882           Tensile Elongation         ASTM D882         ASTM D882           MD: Fracture, 38 μm         1100         %         ASTM D882           MD: Fracture, 38 μm         1400         %         ASTM D882           Flexural Modulus         ASTM D882         ASTM D790           1% Secant, MD: 38 μm         180         MPa         ASTM D790           1% Secant, TD: 38 μm         200         MPa         ASTM D790           Dart Drop Impact 1         120         g         ASTM D1709		Mixing			
Processing Method         Blow film           Physical         Nominal Value         Unit         Test Method           Density         0.916         g/cm³         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         1.0         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Tensile Strength         ASTM D882         ASTM D882           MD: Fracture, 38 μm         40.0         MPa         ASTM D882           Tensile Elongation         ASTM D882         ASTM D882           MD: Fracture, 38 μm         1100         %         ASTM D882           MD: Fracture, 38 μm         1400         %         ASTM D882           Flexural Modulus         ASTM D882         ASTM D790           1% Secant, MD: 38 μm         180         MPa         ASTM D790           1% Secant, TD: 38 μm         200         MPa         ASTM D790           Dart Drop Impact 1         120         g         ASTM D1709					
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Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         1.0         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Tensile Strength         ASTM D882           MD: Fracture, 38 μm         50.0         MPa         ASTM D882           TD: Fracture, 38 μm         40.0         MPa         ASTM D882           Tensile Elongation         ASTM D882         ASTM D882           MD: Fracture, 38 μm         1100         %         ASTM D882           TD: Fracture, 38 μm         1400         %         ASTM D882           Flexural Modulus         ASTM D790         ASTM D790           1% Secant, MD: 38 μm         180         MPa         ASTM D790           1% Secant, TD: 38 μm         200         MPa         ASTM D790           Dart Drop Impact 1         120         g         ASTM D1709	Physical	Nominal Value	Unit	Test Method	
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Tensile Strength         ASTM D882           MD: Fracture, 38 μm         50.0         MPa         ASTM D882           TD: Fracture, 38 μm         40.0         MPa         ASTM D882           Tensile Elongation         ASTM D882         ASTM D882           MD: Fracture, 38 μm         1100         %         ASTM D882           TD: Fracture, 38 μm         1400         %         ASTM D882           Flexural Modulus         ASTM D790         ASTM D790           1% Secant, MD: 38 μm         180         MPa         ASTM D790           1% Secant, TD: 38 μm         200         MPa         ASTM D790           Dart Drop Impact 1         120         g         ASTM D1709			•		
MD: Fracture, 38 μm 50.0 MPa ASTM D882  TD: Fracture, 38 μm 40.0 MPa ASTM D882  Tensile Elongation ASTM D882  MD: Fracture, 38 μm 1100 % ASTM D882  TD: Fracture, 38 μm 1400 % ASTM D882  Flexural Modulus ASTM D882  Flexural Modulus ASTM D790  1% Secant, MD: 38 μm 180 MPa ASTM D790  1% Secant, TD: 38 μm 200 MPa ASTM D790  Dart Drop Impact 1 120 g ASTM D1709	Films	Nominal Value	Unit	Test Method	
TD: Fracture, 38 μm       40.0       MPa       ASTM D882         Tensile Elongation       ASTM D882         MD: Fracture, 38 μm       1100       %       ASTM D882         TD: Fracture, 38 μm       1400       %       ASTM D882         Flexural Modulus       ASTM D790         1% Secant, MD: 38 μm       180       MPa       ASTM D790         1% Secant, TD: 38 μm       200       MPa       ASTM D790         Dart Drop Impact 1       120       g       ASTM D1709	Tensile Strength			ASTM D882	
Tensile Elongation         MD: Fracture, 38 μm       1100       %       ASTM D882         TD: Fracture, 38 μm       1400       %       ASTM D882         Flexural Modulus       ASTM D790         1% Secant, MD: 38 μm       180       MPa       ASTM D790         1% Secant, TD: 38 μm       200       MPa       ASTM D790         Dart Drop Impact 1       120       g       ASTM D1709	MD: Fracture, 38 μm	50.0	MPa	ASTM D882	
MD: Fracture, 38 μm 1100 % ASTM D882  TD: Fracture, 38 μm 1400 % ASTM D882  Flexural Modulus  1% Secant, MD: 38 μm 180 MPa ASTM D790  1% Secant, TD: 38 μm 200 MPa ASTM D790  Dart Drop Impact 1 120 g ASTM D1709	TD: Fracture, 38 µm	40.0	MPa	ASTM D882	
TD: Fracture, 38 μm 1400 % ASTM D882  Flexural Modulus ASTM D790  1% Secant, MD: 38 μm 180 MPa ASTM D790  1% Secant, TD: 38 μm 200 MPa ASTM D790  Dart Drop Impact 1 120 g ASTM D1709	Tensile Elongation			ASTM D882	
Flexural Modulus         1% Secant, MD: 38 μm       180       MPa       ASTM D790         1% Secant, TD: 38 μm       200       MPa       ASTM D790         Dart Drop Impact 1       120       g       ASTM D1709	MD: Fracture, 38 μm	1100	%	ASTM D882	
1% Secant, MD : 38 μm 180 MPa ASTM D790 1% Secant, TD : 38 μm 200 MPa ASTM D790 Dart Drop Impact 1 120 g ASTM D1709	TD: Fracture, 38 µm	1400	%	ASTM D882	
1% Secant, TD : 38 μm 200 MPa ASTM D790  Dart Drop Impact <sup>1</sup> 120 g ASTM D1709	Flexural Modulus			ASTM D790	
Dart Drop Impact <sup>1</sup> 120 g ASTM D1709	1% Secant, MD : 38 μm	180	MPa	ASTM D790	
	1% Secant, TD : 38 μm	200	MPa	ASTM D790	
Elmendorf Tear Strength - TD (38 μm) 370 g ASTM D1922	Dart Drop Impact <sup>1</sup>	120	g	ASTM D1709	
	Elmendorf Tear Strength - TD (38 μm)	370	g	ASTM D1922	

Additional Information	Nominal Value	Unit	Test Method
Biobased Content	> 87	%	ASTM D6866
NOTE			
1.	F50		

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## Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533 Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

