

SABIC® LDPE 2201H1

Low Density Polyethylene

Saudi Basic Industries Corporation (SABIC)

Message:

SABIC® LDPE 2201H1 is a grade with a low level of anti block and a medium level of slip agent (E=erucamide).
Blown Film: The grade has a very good draw down ability. Films based on 2201H1 combine toughness with high tear strength, good optical properties and low CoF.
Cast Film: Films made from this grade typically show good optical properties, processability and draw down.
Application
SABIC® LDPE 2201H1 is typically developed for lamination films, high quality carrier bags and high quality packaging films.
This product is not intended for and must not be used in any pharmaceutical/medical applications.

General Information			
Additive	Low caking resistance (210 ppm)		
	Erucamide Lubricating Additive (450 ppm)		
Features	Low caking resistance		
	Low density		
	Low friction coefficient		
	Optical		
	Workability, good		
	Good stripping		
	Good tear strength		
	Good toughness		
	Moderate smoothness		
Uses	Blown Film		
	Packaging		
	Laminate		
	Bags		
	cast film		
Processing Method	Blow film		
	cast film		
Physical	Nominal Value	Unit	Test Method
Density	0.922	g/cm ³	ISO 1183/A
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.85	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Coefficient of Friction (Blown Film)	0.15		ASTM D1894
Films	Nominal Value	Unit	Test Method

Film Thickness - Tested			
-- 1	25	µm	
-- 2	50	µm	
Tensile Modulus			ISO 527-3
MD: 25 µm, cast film	140	MPa	ISO 527-3
TD: 25 µm, cast film	140	MPa	ISO 527-3
MD: 50 µm, blown film	170	MPa	ISO 527-3
TD: 50 µm, blown film	170	MPa	ISO 527-3
Tensile Stress			ISO 527-3
MD: Yield, 25 µm, cast film	9.00	MPa	ISO 527-3
TD: Yield, 25 µm, cast film	8.00	MPa	ISO 527-3
MD: Yield, 50 µm, blown film	11.0	MPa	ISO 527-3
TD: Yield, 50 µm, blown film	11.0	MPa	ISO 527-3
MD: Fracture, 25 µm, cast film	24.0	MPa	ISO 527-3
TD: Fracture, 25 µm, cast film	17.0	MPa	ISO 527-3
MD: Broken, 50 µm, blown film	25.0	MPa	ISO 527-3
TD: Broken, 50 µm, blown film	20.0	MPa	ISO 527-3
Tensile Elongation			ISO 527-3
MD: Fracture, 25 µm, cast film	260	%	ISO 527-3
TD: Fracture, 25 µm, cast film	580	%	ISO 527-3
MD: Broken, 50 µm, blown film	> 200	%	ISO 527-3
TD: Broken, 50 µm, blown film	> 500	%	ISO 527-3
Impact	Nominal Value	Unit	Test Method
Impact Strength			ASTM D4272
Blown Film : 50.0 µm	250	J/cm	ASTM D4272
Cast Film : 25.0 µm	220	J/cm	ASTM D4272
Blocking (50.0 µm) ³	50	g	Internal method
Re-blocking (50.0 µm) ⁴		g	Internal method
Tear Strength ⁵			ISO 6383-2
MD : 50.0 µm	45.0	kN/m	ISO 6383-2
TD : 50.0 µm	45.0	kN/m	ISO 6383-2
Optical	Nominal Value	Unit	Test Method
Gloss			ASTM D2457
45, 50.0 µm, blown film	65		ASTM D2457
45, 25.0 µm, cast film	73		ASTM D2457
Haze			ASTM D1003A
50.0 µm, blown film	6.0	%	ASTM D1003A
25.0 µm, cast film	4.9	%	ASTM D1003A
Additional Information	Nominal Value	Unit	Test Method
Cast FilmThe optical and film properties are determined on 25 µm cast film. Die gap 1.0 mm. Blown FilmFilm properties have been measured at film of 50 µm with a BUR of 3.The film has been produced on Kiefel IBC blown film line with 200 kg/h. Die size 200 mm, die gap 0.8 mm.			
NOTE			

1.	Cast Film
2.	Blown Film
3.	Blown Film
4.	Blown Film
5.	Blown Film

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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

