

SABIC® LDPE 1808AN00

Low Density Polyethylene

Saudi Basic Industries Corporation (SABIC)

Message:

SABIC® LDPE 1808AN00 is an additive free autoclave grade with a low gel level, a high purity and a specific broad molecular weight distribution. The material can be processed at high speeds, thanks to it's excellent draw down properties and superior web stability. The grade has a very low gel level. SABIC® LDPE 1808AN00 combines high toughness with good flexibility and reasonable environmental stress cracking resistance and is therefore used for flexible and tough articles.

General Information			
Features	Ultra high toughness		
	Low speed solidification crystal point		
	High ESCR (Stress Cracking Resistance)		
	Wide molecular weight distribution		
	Good stripping		
	Good flexibility		
Uses	Packaging		
	Films		
	Composite		
	Masterbatch		
	Coating application		
Agency Ratings	EEC 2002/72/EC		
	FDA 21 CFR 177.1520		
Forms	Particle		
Processing Method	Film extrusion		
	Blow molding		
	Composite		
	Extrusion coating		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	0.920	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	7.5	g/10 min	ISO 1133
190°C/5.0 kg	25	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR)			ISO 1133
190°C/2.16 kg	10.0	cm³/10min	ISO 1133
190°C/5.0 kg	33.0	cm³/10min	ISO 1133

Environmental Stress-Cracking Resistance 1 (60°C, 2.00mm, molded)	2.00	hr	Internal method
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	46		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (2.00 mm, Compression Molded)	160	MPa	ISO 527-2/1BA/50
Tensile Stress			
Yield, 1.60mm, molded	9.00	MPa	ISO 527-2/200
Yield, 2.00mm, molded	8.00	MPa	ISO 527-2/1BA/50
Fracture, 1.60mm, molded	14.0	MPa	ISO 527-2/200
Fracture, 2.00mm, molded	12.0	MPa	ISO 527-2/1BA/50
Tensile Strain			
Fracture, 1.60mm, molded	510	%	ISO 527-2/200
Fracture, 2.00mm, molded	800	%	ISO 527-2/1BA/50
Tensile Creep Modulus			
1 hr	80.0	MPa	ISO 899-1
1000 hr	50.0	MPa	ISO 899-1
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	25	µm	
Tensile Stress			
			ISO 527-3
MD: Yield, 25 µm	9.00	MPa	ISO 527-3
TD: Yield, 25 µm	8.00	MPa	ISO 527-3
MD : 25 µm	13.0	MPa	ISO 527-3
TD : 25 µm	10.0	MPa	ISO 527-3
Tensile Elongation			
			ISO 527-3
MD: Break, 25 µm	300	%	ISO 527-3
TD: Break, 25 µm	300	%	ISO 527-3
Water Vapor Transmission Rate (38°C, 100% RH, 25 µm)			
	22	g/m ² /24 hr	Internal method
Oxygen Permeability (23°C, 25.0 µm) ²	0.90	cm ³ /cm ² /bar/24 hr	Internal method
Enthalpy Change	109	J/g	DIN 53765
Flexural Crack Resistance (25.0 µm)	4000	cycles/10 holes	Internal method
Tear Strength			
			ISO 6383-2
MD : 25.0 µm	10.0	kN/m	ISO 6383-2
TD : 25.0 µm	8.0	kN/m	ISO 6383-2
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
			ISO 180/A
-30°C	7.0	kJ/m ²	ISO 180/A
23°C	45	kJ/m ²	ISO 180/A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (0.45 MPa, Unannealed)	40.0	°C	ISO 75-2/B

Vicat Softening Temperature	88.0	°C	ISO 306/A50
Melting Temperature (DSC)	106	°C	DIN 53765
NOTE			
1.	2 MPa		
2.	0% RH		

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Recommended distributors for this material

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



WECHAT