

Generic LDPE

Low Density Polyethylene

Generic

Message:

This data represents typical values that have been calculated from all products classified as: Generic LDPE
This information is provided for comparative purposes only.

General Information			
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	0.907 - 0.945	g/cm³	ASTM D792
23°C	0.906 - 0.941	g/cm³	ISO 1183
--	0.913 - 0.930	g/cm³	ASTM D1505
--	0.915 - 0.921	g/cm³	ASTM D4883
Apparent Density	0.33 - 0.55	g/cm³	ISO 60
Melt Mass-Flow Rate (MFR)			
190°C/2.16 kg	0.12 - 10	g/10 min	ASTM D1238
190°C/2.16 kg	0.20 - 5.2	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	1.55 - 30.8	cm³/10min	ISO 1133
Molding Shrinkage - Flow (23°C)	2.0	%	ASTM D955
Environmental Stress-Cracking Resistance (23°C)	0.0100 - 500	hr	ASTM D1693
Carbon Black Content	2.5 - 41	%	ASTM D1603
Vinyl Acetate Content	2.5 - 7.1	wt%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			
23°C	40 - 56		ASTM D2240
23°C	40 - 53		ISO 868
Ball Indentation Hardness	14.9 - 18.1	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	92.6 - 354	MPa	ASTM D638
23°C	135 - 313	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	6.31 - 13.9	MPa	ASTM D638
Yield, 23°C	6.94 - 15.8	MPa	ISO 527-2
Fracture, 23°C	4.71 - 18.7	MPa	ASTM D638
Fracture, 23°C	7.00 - 20.0	MPa	ISO 527-2
23°C	7.99 - 21.1	MPa	ASTM D638
23°C	6.90 - 18.4	MPa	ISO 527-2

Tensile Elongation			
Yield, 23°C	3.0 - 110	%	ASTM D638
Yield, 23°C	10 - 40	%	ISO 527-2
Fracture, 23°C	87 - 710	%	ASTM D638
Fracture, 23°C	93 - 600	%	ISO 527-2
Apparent Bending Modulus (23°C)	153 - 320	MPa	ASTM D747
Flexural Modulus			
23°C	102 - 347	MPa	ASTM D790
23°C	109 - 286	MPa	ISO 178
Flexural Strength			ASTM D790
23°C	4.71 - 15.1	MPa	ASTM D790
Yield, 23°C	8.96 - 199	MPa	ASTM D790
Coefficient of Friction	0.085 - 1.0		ASTM D1894
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	25 - 52	µm	
Film Puncture Energy	2.83	J	
Film Puncture Force	49.7 - 54.2	N	
Film Puncture Resistance	3.99	J/cm ³	
Film strength			ASTM D882
MD	122	J/cm ³	ASTM D882
TD	131	J/cm ³	ASTM D882
secant modulus			
MD	121 - 242	MPa	ASTM D882
TD	113 - 301	MPa	ASTM D882
23°C	169 - 203	MPa	ISO 527-3
Tensile Strength			
MD: Yield	8.94 - 20.8	MPa	ASTM D882
TD: Yield	8.23 - 19.4	MPa	ASTM D882
Yield, 23°C	9.94 - 12.4	MPa	ISO 527-3
MD: Fracture	16.4 - 30.1	MPa	ASTM D882
TD: Fracture	12.3 - 28.3	MPa	ASTM D882
Fracture, 23°C	17.3 - 27.3	MPa	ISO 527-3
23°C	16.9 - 28.4	MPa	ISO 527-3
Tensile Elongation			
MD: Yield	21 - 510	%	ASTM D882
MD: Fracture	150 - 460	%	ASTM D882
TD: Fracture	420 - 750	%	ASTM D882
Fracture, 23°C	200 - 660	%	ISO 527-3
Dart Drop Impact			
23°C	25 - 230	g	ASTM D1709
23°C	70 - 180	g	ISO 7765-1
Elmendorf Tear Strength			

MD	3.0 - 520	g	ASTM D1922
TD	52 - 290	g	ASTM D1922
--	0.025 - 2000	N	ISO 6383-2
Trouser Tear Resistance	52.0 - 110	N/mm	ISO 6383-1
Seal Initiation Temperature	105 - 111	°C	
Oxygen Permeability (23°C)	170 - 5900	cm ³ ·mm/m ² /atm/24 hr	ASTM D3985
Oxygen Transmission Rate (23°C)	3300 - 8000	cm ³ /m ² /24 hr	ASTM D3985
Water Vapor Transmission Rate	13 - 24	g/m ² /24 hr	ASTM F1249
Water Vapor Transmission	10 - 23	g/m ² /24 hr	ASTM E96
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	350 - 440	J/m	ASTM D256
23°C	40 - 50	kJ/m ²	ISO 180
Tensile Impact Strength			
23°C	73.6 - 273	kJ/m ²	ASTM D1822
23°C	188	kJ/m ²	ISO 8256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, not annealed	39.2 - 95.0	°C	ASTM D648
0.45 MPa, not annealed	39.0 - 54.1	°C	ISO 75-2/B
Brittleness Temperature			
--	-78.8 - -68.2	°C	ASTM D746
--	-70.4 - -69.0	°C	ISO 974
Vicat Softening Temperature			
--	80.5 - 102	°C	ASTM D1525
--	84.5 - 104	°C	ISO 306
Melting Temperature			
--	101 - 117	°C	
--	102 - 114	°C	DSC, ASTM D3418
--	107 - 114	°C	ISO 11357-3
--	104 - 114	°C	ISO 3146
Peak Crystallization Temperature (DSC)			
--	74.0 - 113	°C	ASTM D3418
--	96.0 - 109	°C	ISO 3146
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+4 - 2.5E+13	ohms	ASTM D257
Volume Resistivity			
23°C	1.0E+3 - 1.3E+16	ohms·cm	ASTM D257
23°C	9.9E+15 - 1.0E+16	ohms·cm	IEC 60093
Dielectric Strength			
23°C	21 - 26	kV/mm	ASTM D149
23°C	20 - 40	kV/mm	IEC 60243-1

Dielectric Constant		
23°C	2.27 - 2.34	ASTM D150
23°C	2.25 - 2.28	ASTM D1531
23°C	2.28 - 2.50	IEC 60250
23°C	2.29	IEC 60250

Dissipation Factor		
23°C	7.5E-5 - 1.2E-3	ASTM D150
23°C	4.0E-5 - 3.0E-4	ASTM D1531
23°C	4.0E-5 - 3.4E-4	IEC 60250

Optical	Nominal Value	Unit	Test Method
Gardner Gloss	65 - 101		ASTM D523
Gloss	47 - 112		ASTM D2457
Transmittance	4.4 - 94.0	%	ASTM D1003
Clarity	20.8 - 86.2		ASTM D1746
Haze	3.0 - 12	%	ASTM D1003

Injection	Nominal Value	Unit
Drying Temperature	78.7 - 82.3	°C
Drying Time	2.0 - 3.1	hr
Rear Temperature	161 - 180	°C
Middle Temperature	176 - 181	°C
Front Temperature	176 - 201	°C
Nozzle Temperature	177 - 216	°C
Processing (Melt) Temp	153 - 316	°C
Mold Temperature	15.0 - 45.5	°C
Injection Pressure	6.37 - 86.2	MPa

Injection instructions

This data represents typical values that have been calculated from all products classified as: Generic LDPET. This information is provided for comparative purposes only.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	110 - 262	°C
Cylinder Zone 2 Temp.	146 - 290	°C
Cylinder Zone 3 Temp.	154 - 214	°C
Cylinder Zone 4 Temp.	159 - 262	°C
Cylinder Zone 5 Temp.	154 - 325	°C
Adapter Temperature	167 - 320	°C
Melt Temperature	151 - 219	°C
Die Temperature	146 - 235	°C

Extrusion instructions

This data represents typical values that have been calculated from all products classified as: Generic LDPET. This information is provided for comparative purposes only.

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

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