



Linear Low Density Polyethylene (LLDPE) -- C4 Blown Film Grade Data Sheets

Grade			C4 Film									
			3210	3214	3410	3414	3220	3224	3224D	3310	3314	
Properties	Unit	Method										
MI _{2,16}	g/10min	ASTM D1238	1.0	1.0	2.0		1.0					
Density	g/cm ³	ASTM D1505	0.920	0.926	0.920		0.9					
Thermal Properties												
Melting point	°C	DSC	122	124	122		122					
Brittleness point	°C	ASTM D746	<-70	<-70	<-70		<-70					
Softening point	°C	ASTM D1525	93	95	93		93					
Mechanical Properties												
Tensile strength at yield	Kg/cm ²	ASTM D882B MD/TD	100/110	120/130	100/110		100/110					
Tensile strength at break	Kg/cm ²	ASTM D882B MD/TD	410/320	440/340	360/280		350/280					
Elongation at break	%	ASTM D882B MD/TD	620/840	600/800	600/800		630/800					
Secant Modulus 1%	Kg/cm ²	ASTM D882B MD/TD	1450/1600	2300/3100	1500/2100		2000/2300					
Elmendorf Tear Resistance	g/25 μm	ASTM D1922 MD/TD	145/370	80/350	40/430		110/300					
Dart Drop Test	g	ASTM D1709	150	90	120		110					
Optical Properties												
Haze	%	ASTM D1003	12	14	15	17	19	20	25	10	12	
Gloss _{45°}	%	ASTM D2457	53	51	45	48	57	55	51	55	55	
Clarity	%		70	61	55	50	73	64	52	70	65	
Additives												
Slip Agent			no	medium	no	medium	no	medium	medium	no	medium	
Antiblocking Agent			no	medium	no	medium	no	medium	high	no	medium	
Characteristics			Better sealing High puncture resistance Greater drawdown High tensile strength	Easier sealing Greater drawdown Better stiffness Better toughness	Better sealing Greater drawdown Good extrudability				Better sealing Better optical			
Applications			Heavy duty sacks Agricultural films Liners Produce bags Stretchfilm	Thin film Wicketed bag On-the-reel bag Blending into shrink film improve burnthrough	Light,Medium duty film Stretchfilm				Lamination Food packaging			

- PS.: 1.Film Processing Conditions : Output=10kg/hr 、BUR=2.0 、Thickness:Blown film=38 μm 、 Cast film20 μm 。
 2.The 4th character of Grade name represent the type of additive , 0:nomoral antioxidant 、 4:high slipping and antiblocking agent 、 5:ZnO Neutralizer 、 6:Anti UV 。
 3.Data shown are average values and should not be examined for specifications 。
 4. Sales Department: Taiwan Tel: 886-2-27178141,Fax: 886-2-27193260



Linear Low Density Polyethylene (LLDPE) -- C6 Blown Flim Grade Data Sheets

Grade			C6 Film					
			2210	2214	2410	2414	2110	2114
Properties	Unit	Method						
MI _{2.16}	g/10min	ASTM D1238	1.0		1.0		1.0	
Density	g/cm ³	ASTM D1505	0.920		0.924		0.918	
Thermal Properties								
Melting point	°C	DSC	122		123		121	
Brittleness point	°C	ASTM D746	<-70		<-70		<-70	
Softening point	°C	ASTM D1525	93		95		93	
Mechanical Properties								
Tensile strength at yield	Kg/cm ²	ASTM D882B MD/TD	105/110		130/140		100/110	
Tensile strength at break	Kg/cm ²	ASTM D882B MD/TD	420/340		420/330		500/450	
Elongation at break	%	ASTM D882B MD/TD	580/760		580/760		620/810	
Secant Modulus 1%	Kg/cm ²	ASTM D882B MD/TD	1900/2400		2700/3500		1600/2000	
Elmendorf Tear Resistance	g/25 μm	ASTM D1922 MD/TD	240/540		140/570		305/500	
Dart Drop Test	g	ASTM D1709	260		175		610	
Optical Properties								
Haze	%	ASTM D1003	13	15	23	25	13	15
Gloss45 °	%	ASTM D2457	51	51	35	35	51	51
Clarity	%		65	60	50	45	65	60
Additives								
Slip Agent			no	high	no	high	no	high
Antiblocking Agent			no	high	no	high	no	high
Characteristics			Excellent Sealing		Excellent Sealing		Supper C6	
			Excellent Hot Tack		Excellent Hot Tack		Excellent Sealing	
Applications			High Impact Strength		Good Substrate		Excellent Hot Tack	
			High Tear Strength		Low Gel Level		Very High Impact	
			High Puncture Resistance		Good Optical Properties		Very High Tear Strength	
			Blended wit LDPE					
			Heavy Duty Sacks		Lamination		High Performance thin film	
			Mailing Films		Sealing Layers in			
			Stretchfilm		Coextrusion			
			Refuse Bag					
			Carrier Bag					

- PS.: 1.Film Processing Conditions : Output=10kg/hr · BUR=2.0 · Thickness:Blown flim=38 μm · Cast flim20 μm ·
 2.The 4th character of Grade name represent the type of additive , 0:nomoral antioxidant · 4:high slipping and antiblocking agent · 5:ZnO Neutralizer · 6:Anti UV ·
 3.Data shown are average values and should not be examined for specifications ·
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Linear Low Density Polyethylene (LLDPE)
 -- Cast Flim Grade Data Sheets

Grade			C4 Cast Flim	C6 Cast Flim
			3225	2125
Properties	Unit	Method		
Melt Index MI _{2,16}	g/10min	ASTM D1238	2.0	2.0
Density	g/cm ³	ASTM D1505	0.920	0.918
Thermal Properties				
Melting point	°C	DSC	122	121
Brittleness point	°C	ASTM D746	<-70	<-70
Softening point	°C	ASTM D1525	93	93
Mechanical Properties				
Tensile strength at yield	Kg/cm ²	ASTM D882B MD/TD	100/110	100/110
Tensile strength at break	Kg/cm ²	ASTM D882B MD/TD	360/280	330/250
Elongation at break	%	ASTM D882B MD/TD	600/800	540/710
Secant Modulus 1%	Kg/cm ²	ASTM D882B MD/TD	1500/2100	1800/1700
Elmendorf Tear Resistance	g/25 μ _m	ASTM D1922 MD/TD	110/300	260/570
Dart Drop Test	g	ASTM D1709	120	150
Optical Properties				
Haze	%	ASTM D1003	3	3
Gloss45 °	%	ASTM D2457	96	96
Clarity	%		95	95
Additives				
Slip Agent			no	no
Antiblocking Agent			no	no
Characteristics			High Puncture Resistance	Better Sealing
			Greater Drawdown	High output Rate
Applications			Good extrudability	Excellent Drawdown
				High Puncture Resistance
			Cast Stretchfilm	Cast Stretchfilm
			Overwarp Film	Overwarp Film

- PS.: 1.Flim Processing Conditions : Output 10kg/hr 、 BUR=2.0 、 Thickness Blown flim=38 μ_m 、 Cast flim 20 μ_m
 2.The 4th character of Grade name represent the type of additive 0:nomoral antioxidant 、 4:high slipping and antiblocking agent 、 5:ZnO Neutralizer 、 6:Anti UV 。
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Linear Low Density Polyethylene (LLDPE)
 -- Injection Grade Data Sheets

Grade			Injection	
			3470	3490
Properties	Unit	Test Method		
Melt Index MI _{2.16}	g/10min	ASTM D1238	21.0	50
Density	g/cm ³	ASTM D1505	0.924	0.926
Thermal properties				
Melting point	°C	FPC Method	124	124
Brittleness point	°C	ASTM D746	<-70	<-70
Softening point	°C	ASTM D1525	93	95
Mechanical properties				
Tensile strength at yield	Kg/cm ²	ASTM D638	120	120
Tensile strength at break	Kg/cm ²	ASTM D638		
Elongation at break	%	ASTM D638	850	350
Tensile Impact Strength	kg · cm/cm ²	ASTM D1822		
Izod Impact Strength	Kg-cm/cm notch	ASTM D256		
Hardness	Shore D	ASTM D2240	48	50
ESCR	Hours	ASTM D1693		
Electrical properties				
Dielectric Constant 1MHz		ASTM D1531		
Volume Resistivity	Ohm-cm	ASTM D257		
Characteristics			Excellent flow Good softness Suitable for very fast cycling applications	Excellent flow Good softness Suitable for very fast cycling applications
Application			Housewares Very thin walled food containers Lids	Housewares Very thin walled food containers Lids

- PS.: 1. Processing Condition : Injection Temperature= 170 - 190°C
 2. Data shown are average values and should not be examined for specifications °
 3. Sales Department: Taiwan Tel: 886-2-27178141,Fax: 886-2-27193260