



SPECIFICATION

ETHYL VINYL ACETATE

Ethylene Vinyl Acetate Copolymers (EVA) Film & Injection & Foaming Grade Data Sheets

Grade Name			Film			Injection, Foaming			Powder coating
			A	B	C	A	B	C	A
Properties	Unit	Method							
Melt Index MI2.16	g/10min	ASTM D1238	0.9	0.7	1.8	2.5	4.0	9.0	80
Density	g/cm3	ASTM D1505	0.930	0.934	0.938	0.928	0.930	0.930	0.930
Vinyl Acetate content	%	-	9	14	18	6	9	9	8
Thermal properties									
Melting point	°C	DSC	93	90	84	102	95	93	95
Brittleness point	°C	ASTM D746	<-70	<-70	<-70	<-70	<-70	<-70	<-70
Softening point	°C	ASTM D1525	80	75	60	85	80	78	70
Mechanical properties									
Tensile strength at yield	Kg/cm2	ASTM D638	60	70	45	80	60	40	15
Tensile strength at break	Kg/cm2	ASTM D638	180	200	150	150	140	130	80
Elongation at break	%	ASTM D638	650	750	800	700	700	700	400
Flexural modulus	Kg/cm2	ASTM D790	700	600	400	800	800	600	300
Hardness	Shord A	ASTM D2240	95	92	88	96	94	94	80
ESCR	Shord D	ASTM D2240	45	40	38	45	43	43	36
Mechanical properties of film									
Tensile strength at yield	Kg/cm2	ASTM D882B MD/TD	50/40	50/40	40/30				
Tensile strength at break	Kg/cm2	ASTM D882B MD/TD	300/280	310/280	280/250				
Elongation at break	%	ASTM D882B MD/TD	400/550	450/600	500/600				
Secant modulus 1%	Kg/cm2	ASTM D1922 MD/TD	350/400	370/420	350/380				
Tear resistance (elmendorf)	N/mm	ASTM D1709	10/24	10/24	10/24				
Dart drop test	g	ASTM D1894	550	620	650				
Coefficient of friction(COF)		ASTM D1894	>0.5	>0.5	>0.5				
Optical qualities									
Haze	%	ASTM D1003	5	3	3				
Gloss 45°	%	ASTM D2457	80	90	90				
Recommended film thickness	μ		30-150	30-150	30-150				
Additives									
Slip agent	Level								
Anti blocking agent	Level								



Characteristics	Application
Good processability Good toughness Non-BHT content	Greenhouse film General purpose film
Good processability Good toughness High optical Non-BHT content	Greenhouse film General packaging sanitary applications
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Good chemical resistance Good-processability	Flexible items X-linked Foam
Good chemical resistance Good-elasticity	Flexible items X-linked Foam
Good processability Heat sealing	Injection Lamination Extrusion-coating X-linked Foam
Excellent-processability High elasticity toughness	Powder coating for non-woven & fabrics Hot melt

PS: 1. film extrusion parameters : screw $\psi = 60\text{mm}$ 、L/D=30、blow-up ratio(BUR)=2.5
Temperature =160 - 200 °C thickness 30 μ (MI >1.2) / 50 μ (MI <1.2)
2. Data shown are average values and should not be examined for specifications.



Ethylene Vinyl Acetate Copolymers (EVA) Injection & Foaming Grade Data Sheets

Grade Name			Injection, Foaming		
			A	B	C
Properties	Unit	Method			
Melt Index MI2.16	g/10min	ASTM D1238	2.5	4.0	1.5
Density	g/cm ³	ASTM D1505	0.934	0.934	0.935
Vinyl Acetate content	%	-	14	14	15
Thermal properties					
Melting point	°C	DSC	90	90	87
Brittleness point	°C	ASTM D746	<-70	<-70	<-70
Softening point	°C	ASTM D1525	70	70	65
Mechanical properties					
Tensile strength at yield	Kg/cm ²	ASTM D638	80	60	55
Tensile strength at break	Kg/cm ²	ASTM D638	140	150	140
Elongation at break	%	ASTM D638	700	700	700
Flexural modulus	Kg/cm ²	ASTM D790	800	800	400
Hardness	Shord A	ASTM D2240	96	94	90
ESCR	Shord D	ASTM D2240	45	43	40
Mechanical properties of film					
Tensile strength at yield	Kg/cm ²	ASTM D882B MD/TD			
Tensile strength at break	Kg/cm ²	ASTM D882B MD/TD			
Elongation at break	%	ASTM D882B MD/TD			
Secant modulus 1%	Kg/cm ²	ASTM D1922 MD/TD			
Tear resistance (elmendorf)	N/mm	ASTM D1709			
Dart drop test	g	ASTM D1894			
Coefficient of friction(COF)		ASTM D1894			
Optical qualities					
Haze	%	ASTM D1003			
Gloss 45°	%	ASTM D2457			
Recommended film thickness	μ				
Additives					
Slip agent	Level				
Anti blocking agent	Level				



Characteristics	Application
High elasticity High flexible	High elasticity High flexible High-flowability
High elasticity High flexible High-flowability	Flexible items X-linked Foam
High elasticity Good-mechanical	Flexible items X-linked Foam -Sandal , Slipper

PS: 1. Processing condition: Injection, Foaming temperature =150 - 180 °C
2. Data shown are average values and should not be examined for specifications.

