

**Brilliant ideas,
innovative solutions!**



Polinas

SOME OF OUR PRODUCTS

124HF

Ultra clear antifog BOPP packaging film providing longer shelf life for fresh vegetable.



413B

Cavitated BOPP roll-fed bottle label film with very low density.

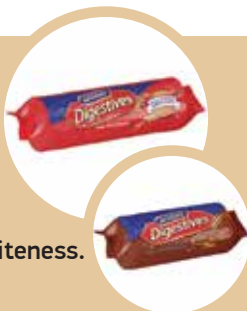


213A

Transparent, BOPP roll-fed bottle label film providing high ink adhesion with improved slip & anti-static properties

119VWBL

Solid White BOPP food packaging film providing very low heat sealing initiation temperature with low COF & high whiteness.



7519WEL

Metallized BOPP food packaging film providing low heat sealing initiation temperature with low COF & enhanced barrier properties.



415VWB

White cavitated BOPP food packaging film providing very low heat sealing initiation temperature with low COF.

417B

White cavitated BOPP food packaging film providing excellent opacity and high gloss.

PKRD

One side chemically treated, other side matte BOPET film providing superior ink adhesion and excellent matte finish

KMPO

Metallized isotropic BOPET lidding film providing excellent metal adhesion and tear resistance.



PRS

Transparent, inline silicone coated BOPET film providing excellent release property with self-adhesive label facestocks.



215DR

Matt BOPP packaging film providing excellent release property in cold seal application.



POLINAS PRODUCT TABLE

POLINEX / Coextruded films					
Film type	Sealability	Density g/cm³	Sealing Initiation Temp. BB C	Treatment	Description
114H	√	0,91	110	One	Transparent BOPP film for general packaging applications
114H2*	√	0,91	110	One	Low COF, hot slip BOPP film for high speed packaging machines
114HB	√	0,96	110	One	Solid white BOPP film for general applications
114HC	√	0,91	110	One	Super clear, low haze BOPP film for textile packaging
114VWH	√	0,91	75	One	Transparent, one side LTS BOPP film with very good hot-tack
115HD	√	0,83	120	One	One side matt, heat sealable BOPP film
119VWBL	√	0,94	85	One	White, both sides heat sealable, one side LTS BOPP film
119W*	√	0,91	100	One	Transparent, both sides heat sealable (one side LTS) BOPP film for food&confectionery packaging
124HF	√	0,91	125	Two	Transparent, both sides heat sealable antifog BOPP film for fresh-cut vegetable product packaging
306	√	0,91	110	None	Super slip, box shrink overwrapping shrink BOPP film

PILEN / Plain Films				
Film type	Sealability g/cm³	Density	Treatment	Description
213E	x	0,91	One	Low haze and stable COF, transparent BOPP film for lamination
213FL*	x	0,91	One	Transparent BOPP film for flower and gift wrapping
213MF	x	0,91	One	Transparent, adhesive tape BOPP base film
215DR	x	0,76	One	Matt release BOPP film for cold seal applications
223HL5	x	0,91	Two	Slip & antistatic modified BOPP film for printing and lamination
213MB	x	0,94	One	Solid white, adhesive tape BOPP base film
223MB2	x	0,96	Two	Superior solid white non-heat sealable BOPP film for cold seal applications

POLIPER / Cavitated Films					
Film type	Sealability	Density g/cm³	Sealing Initiation Temp. BB C	Treatment	Description
414	√	0,70	110	One	Cavitated BOPP film for general packaging applications
424	x	0,70	-	Two	Cavitated BOPP film for cold seal applications
415VWB	√	0,72	80	One	White cavitated, both sides heat-sealable, one side low temperature sealing BOPP film
417B	√	0,75	110	One	High gloss and super white heat sealable cavitated BOPP film
MRGX1	x	0,55	-	Two	Low density cavitated BOPP film for margarine packaging
PMRG	x	0,70	-	Two	Cavitated BOPP film for margarine packaging

POLIPET / Polyester Films					
Film type	Sealability	Density g/cm³	Sealing Initiation Temp. BB C	Treatment	Description
P	X	1,39	-	None	Untreated plain BOPET film
PKR	X	1,39	-	One	One side chemically treated BOPET film
PKUD	X	1,39	-	One	Isotropic, one side chemically treated BOPET film
PRS	X	1,39	-	None	One side inline silicone coated BOPET film for release liner application
PXE	X	1,39	-	One	One side electrical treated BOPET film
PXIE	X	1,39	-	Two	Both sides electrical treated BOPET film
KRXE	X	1,39	-	Two	One side electrical, other side chemically treated BOPET film
KUXE	X	1,39	-	Two	Metallizable, one side electrical, other side chemically treated BOPET film
PKRD	X	1,39	-	One	One side chemically treated, other side matte BOPET film

POLILABEL / Label Films			
Film type	Density g/cm³	Treatment	Description
Wrap Around Label Roll-Fed & Cut-Stack BOPP films			
213A	0,91	One	Transparent, roll-fed bottle label film
413B	0,70	One	White-cavitated, roll-fed bottle label film
7426PM	0,68	Two	Cavitated-metallized, roll-fed bottle label film
7525L	0,91	Two	Metallized, roll-fed bottle label film
Self Adhesive Label BOPP Face Stock Films			
525TS	0,91	Two	Transparent face stock film
423PS	0,68	Two	White cavitated face stock film
423PSD*	0,70	Two	Matt finish, cavitated face stock film
7525TS	0,91	Two	Metallized face stock film
A049	0,68	Two	One side top coated; white/cavitated face stock film
A055	0,91	Two	One side top coated; transparent face stock film
A078	0,91	Two	Metallized side top coated, metallized face stock film
0A78	0,91	Two	Non-metallized side top coated, metallized face stock film

√: Heat sealable
X: Non-heat sealable

*Not regularly produced. Check for technical and commercial conditions.

POLIMET / Metallized Films							
Film type	Sealability	Density g/cm³	Sealing Initiation Temp. BB C	OTR cc/m²/day	WVTR g/m²/day	Treatment	Description
7514	√	0,91	115	≍ 150	≍ 1	One	Heat sealable metallized BOPP film
7514E	√	0,91	115	≍ 80	≍ 0,3	One	High barrier heat sealable metallized BOPP film
7519W	√	0,91	100	≍ 150	≍ 1	One	Metallized, one side low temperature sealing BOPP film
7525	x	0,91	-	≍ 150	≍ 1	Two	Metallized BOPP film for cold seal applications
MRG	x	0,70	-	≤85	≤0,7	Two	BOPP Cavitated-metallized overwrap film for margarine packaging
KMX	x	1,39	-	1	0,5	Two	Metallized side chemical treated, other side electrical treated BOPET film for triplex structures
KMXE	x	1,39	-	≤1	≤0,5	Two	Metallized side chemical treated, other side electrical treated High Barrier BOPET film
KMXO	x	1,39	-	1	0,5	Two	Metallized side chemical treated, other side electrical treated Isotropic BOPET film
KMP	x	1,39	-	1	0,5	One	Metallized side chemical treated, other side plain BOPET film
KMPO	x	1,39	-	1	0,5	One	Metallized side chemical treated, other side plain Isotropic BOPET film
KRPM	x	1,39	-	1	0,5	One	One side chemically treated, other side metallized BOPET film
PXM	x	1,39	-	1	0,5	One	One side electrical treated, other side metallized BOPET film

POLIKAP / Coated Films						
Film type	Sealability	Density g/cm³	OTR cc/m²/day	WVTR g/m²/day	Print Side	Description
0X26	√	0,91	≍ 25	≍ 3	Uncoated side	Transparent, one side heat sealable PVdC coated BOPP film for HFFS machines
B051	x	0,91	≍ 5	≍ 5	PVOH coated side	Transparent, one side PVOH coated BOPP film for cold seal applications
B050	√	0,91	≍ 5	≍ 5	PVOH coated side	Transparent, one side PVOH coated heat sealable BOPP film
CC26	√	0,91	≍ 1300	≍ 4,5	Acrylic coated side	Transparent, both side acrylic coated BOPP film
CX26	√	0,91	≍ 25	≍ 3	Acrylic coated side	Transparent, one side PVdC coated, other side acrylic coated BOPP film
PSA	√	1,39	8	7	Coated side	One side heat sealable PVdC coated BOPET film
PLAC-TH*	√	1,39	70	30	Uncoated side	Peelable, antifog BOPET film
PHAC-TH*	√	1,39	70	30	Uncoated side	Higher grade peelable, antifog BOPET film

POLISTRIP / Tear Tapes	
MOPP based, self adhesive easy opening tear tapes in standard colour or with special design	
Available Colour	Transparent, red, gold and silver. It can also be customized upon request
Available Patterns	Solid, lined and dotted. Your logo can also be printed for security purpose
* Not regularly produced. Check for technical and commercial conditions.	

PLASTİK FİLMLERİN ÖZELLİKLERİNİ KARŞILAŞTIRMA TABLOSU
COMPARISON TABLE OF PROPERTIES OF PLASTIC FILMS

FİLM TİPİ FILM TYPE ÖZELLİKLERİ PROPERTIES	BİRİM UNITS	ASTM Test Method	BOPP Biaxially Oriented Polypropylene	CPP Cast Polypropylene	SEL Cellophane	PVC Polyvinyl Chloride	BON Biaxially Oriented Nylon	PET Polyester	PS Polystyrene	LDPE Low Density Polyethylene	HDPE High Density Polyethylene
Özgül Ağırlık Specific Gravity	-	D 1505	0,91	0,90	1,5	1,3	1,16	1,4	1,05	0,92	0,95
Verim Yield	in ² /lb mil m ² /kg(25mic)	-	30,935 44,0	31,216 44,4	18,772 26,7	21,584 30,7	24,186 34,4	20,038 28,5	26,787 38,1	30,584 43,5	29,600 42,1
Gerilme Direnci Tensile Strength	psi kg/mm ²	D 882	7.500-40.000 5-28	4.500-10.000 3-7	700-18.000 5-12	1.400-10.000 1-7	32.600-35.500 23-25	20.000-35.000 14-25	8.000-12.000 5-8	1.500-4.000 1-2	2.400-6.100 2-4
Uzama Elongation	%	D 882	35-475	550-1000	10-50	100-500	100-120	60-165	3-40	100-700	10-650
Nem Geçirgenliği Water Vapor Transmission	g.mil/m ² /day 24 hr, 38°C 90%RH	F 1249	0,016-0,026	0,045	0,026-8,5	0,32-1,9	0,66-0,71	0,06-0,08	0,45-0,65	0,06-0,097	0,02
Gaz Geçirgenliği Gas Permeability	cc-mil/m ² /day 24 hr, 25°C 0%RH	D 3985	10	9,7-15,5	0,03-0,05	0,13-2,06	0,08-0,09	0,2-0,4	16-23	32	12
			1,3	2,6-3,1	0,03-0,1	-	-	0,05-0,07	-	12	2,7
Aside Dayanıklılık Resistance To Strong Acids	-	D 543	İyi Good	İyi Good	Zayıf Poor	İyi Good	Zayıf Poor	İyi Good	İyi Good	İyi Good	İyi Good
Baza Dayanıklılık Resistance To Strong Alkalies	-	D 543	İyi Good	İyi Good	Zayıf Poor	İyi Good	Orta Fair	Zayıf Poor	İyi Good	İyi Good	İyi Good
Gres ve Yağlara Dayanıklılık Resistance To Grease And Oils	-	D 722	İyi Good	İyi Good	İyi Good	Orta Fair	İyi Good	İyi Good	Orta Fair	Zayıf Poor	İyi Good
Solventlere Dayanıklılık Resistance To Organic Solvents	-	D 543	İyi Good	İyi Good	İyi Good	Zayıf Poor	İyi Good	İyi Good	Orta Fair	Orta Fair	İyi Good
Elektrik Direnci Electrical Resistivity	ohm ² -cm	D 257	10 ¹⁸	10 ¹⁸	10 ¹¹	10 ¹¹ -10 ¹⁴		10 ¹⁸	10 ⁷ -10 ¹⁶	10 ¹⁶	10 ¹⁶
Isıl Yapışma Sıcaklık Aralığı Heat Sealing Temperature Range	°F °C	-	167 75	195-285 90-140	180-350 82-176	290-450 143-232		425-450 218-232	250-350 121-176	250-400 121-204	275-400 135-204

BAZI ÇEVİRİMLER / SOME CONVERSIONS

Çevrimler <i>Properties</i>	Çevrilen <i>To Convert From</i>	Çevrilecek <i>To</i>	Çarpım Değeri <i>Multiply by</i>
Verim <i>Yield</i>	in ² /lb m ² /kg	m ² /kg in ² /lb	0.00142 703.074
Kalınlık <i>Thickness</i>	mils microns gauge	microns mils microns	25.4 0.0394 0.254
Gerilme Direnci ve Modülüsü <i>Tensile Strenght and Tensile Modulus</i>	lbs/ins ² newtons/mm ² newtons/mm ²	newtons/mm ² lbs/ins ²	0.0069 144.92
Yırtılma Dayanımı <i>Tear Strenght</i>	g/mil g/micron	g/micron g/mil	0.0394 25.38
Nem Geçirgenlik <i>(WVTR)</i>	g/100 in ² /24 hrs g/m ² /24 hrs g/100 in ² /24 hrs/mil g/m ² /24 hrs/ micron	g/m ² /24 hrs g/100 in ² /24 hrs g/m ² /24 hrs/micron g/100 in ² /24 hrs/mil	15.50 0.0654 0.610 1.64
Oksijen Geçirgenlik O₂ <i>Transmission Rate (OTR)</i>	cm ³ /100 in ² /24 hrs cm ³ /m ² /24 hrs cm ³ /100 in ² /24 hrs/mil cm ³ /m ² /24 hrs/ micron	cm ³ /m ² /24 hrs cm ³ /100 in ² /24 hrs cm ³ /m ² /24 hrs/micron cm ³ /100 in ² /24 hrs/mil	15.50 0.0654 0.610 1.64
Basınç <i>Pressure</i>	psi kg/cm ²	kg/cm ² psi	0.0703 14.22
Kaplama Kalınlığı (ABD) <i>Coating Weights in U.S.A</i>	lbs/Reem g/m ²	g/m ² lbs/Reem	1.63 0.613

$$^{\circ}\text{F}=(^{\circ}\text{C}\times 1.8)+32$$

$$^{\circ}\text{C}=(^{\circ}\text{F}-32)\times 0.556$$

$$1 \text{ ream}=432.000 \text{ in}^2=278.71 \text{ m}^2$$

Polinas sustains its growth

- The leading BOPP & BOPET & CPP film producer of Turkey for 35 years.
- Acquired the prominent BOPET film producer of Europe, Nuroll SpA in 2011
- BOPET line having 30.000 tons/year capacity started production in Manisa, Turkey, in 2012.
- New BOPP line investment, having 40.000 tons/year capacity, started in 2015.
- Well-known brand SERA, food preservation and kitchen solutions.



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