

TECHNICAL PROPERTIES
POLYETHYLENE TEREPHTHALATE FILM -100 micron thickness

Dims		100 micron	Type	FD00	
Condition		23+/-3°C	Thickness	100	
Melting point		255-260°C	Density	1.390-1.400 при 23°	
Mechanical damage		Not available	Corona	Not less 38 din.	
Properties		Unit	Standard	Measuring	Testing Method
Average thickness		micron	100.0+/-1.5	99.80	ASTM D-882
Tensile strength	MD	kg/мм	18.0+/- 3.5	20.10	
	TD	kg/мм	20.0+/- 3.0	19.90	
Alongation At break	MD	%	210.0+/- 25.0	215.6	ASTM D-882
	TD		145.0 +/- 25.0	149.0	
F-5 Value	MD	Kг/мм	11.5 +/- 1.0	11.6	ASTM D-882
	TD		11.5 +/- 1.0	11.50	
Shrinkage	MD	%	0.50+/- 0.50	0.60	ASTM D-2305 (150°C, 30 мин.)
	TD		0.25 +/- 0.25	0.25	
Coefficient of	mS	-	0.70	0.36	ASTM D-1894
Hase	mK	-	0.70	0.35	

RESULTS TABLE FOR PET FILM

Image identification	Precipitate (mg/inch ²)	Dissolution of chloroform (mg/inch ²)	Limits (mg/inch ²)	Passed/Not passed
Water	0,013	Not available	0,5	Passed
Water 2	0,008	Not available	0,5	Passed
Water 3	0,044	Not available	0,5	Passed
Water 4	0,004	Not available	0,5	Passed
Heptane 1	0,009	Not available	0,5	Passed
Heptane 2	0,015	Not available	0,5	Passed
Heptan 3	0,021	Not available	0,5	Passed
Heptan 4	0,019	Not available	0,5	Passed
50% Ethanol 1	0,000	Not available	0,5	Passed
50% Ethanol 2	0,021	Not available	0,5	Passed
50% Ethanol 1	0,007	Not available	0,5	Passed
50% Ethanol 4	0,008	Not available	0,5	Passed

TECHNICAL PROPERTIES

POLYETHYLENE TEREPHTHALATE FILM

1. Characteristics and uses

Transparent polyester film, excellent electrical insulation properties, excellent antistatic property. Mainly used in electronic materials with a protective film, insulating gasket etc..

2. Recommended nominal thickness performance index

This type of polyester film recommended preferred nominal thickness of 100 μ m, 125 μ m, 150 μ m, 188 μ m, its performance shall be in accordance with the provisions of table 1

Table 1 recommended nominal thickness performance index

Item		UNIT	desired value				Test method
Nominal thickness		μm	100	125	150	188	
Thickness deviation		%	±3	±3	±3	±4	GB/T 13542.2-2009
tensile strength ≥	MD	MPa	170				
	TD		180				
elongation at break ≥	MD	%	130				
	TD		100				
scale change (150℃,15min) ≤	MD	%	1.5				
	TD		1.0				
light transmittance ≥		%					GB/T 2410-2008
fog level ≤			5.0				
surface resistivity ≤		Ω	1.0×10 ¹¹				GB/T 1410-2006
NOTE: 1.MD For the longitudinal; TD FOR Transverse。 2. Surface resistivity for type test, other projects for factory inspection。							

CLEAR BOPET FILM TECHNOLOGY DATA

SPEC.	150UM BOPET CLEAR FILM	ITEM	
PROPERTIES		UNITS	TYPICAL VALUES
THICKNESS		UM	150
TENSILE STRENGTH	MD	MPA	162.7
	TD	MPA	193.8
ELONGATION	MD	%	168.2
	TD	%	149.8
HEAT SHRINKAGE	MD	%	1.4
	TD	%	0.52
HAZE		%	3.38
TRANSPARENCE		%	88.96
SURFACE TENSION		DYN/CM	56
FRICTION COEFFICIENT		μS/μD	0.413--
GLOSS INDEX		GS	143.2
AVERAGE THICKNESS		μM	149.7
AVERAGE THICKNESS TOLERANCE		%	1.5
MIN. THICKNESS TOLERANCE		%	-1.38
THICKNESS TOLERANCE		%	-0.8

T: 24°C

RH: 50%

QUALITY INSPECTOR:

WHITE BOPET FILM TECHNOLOGY DATA

SPEC.	150UM BOPET WHITE FILM	ITEM	
PROPERTIES		UNITS	TYPICAL VALUES
THICKNESS		UM	150
TENSILE STRENGTH	MD	MPA	178.2
	TD	MPA	150.8
ELONGATION	MD	%	164.2
	TD	%	119.8
HEAT SHRINKAGE	MD	%	0.81
	TD	%	0.32
HAZE		%	91.08
TRANSPARENCE		%	19.96
SURFACE TENSION		DYN/CM	56
FRICTION COEFFICIENT		μS/μD	0.443
GLOSS INDEX		GS	58
AVERAGE THICKNESS		μM	149.7
AVERAGE THICKNESS TOLERANCE		%	2.1
MIN. THICKNESS TOLERANCE		%	-1.78
THICKNESS TOLERANCE		%	-0.8

T: 24°C

RH: 50%

QUALITY INSPECTOR:

**TECHICAL SPECIFICATIONS SHEET
POLYESTER FILM**

Grade-1470

PROPERTIES	TEST METHOD	UNIT	VALUES
Thickness	ASTM D3/4	Micron	250
Yield	JPFTM	M2/kg	2.9
Haze(max)	ASTM D1003	%	90
Total Luminous Transmission	ASTM D1003	%	67
Co-efficient of Friction(max)	ASTM D1894	Static	0.35
Tensile strength(min)	ASTN D882	Kg/m2 MD	1600
		Kg/m2 TD	1600
Elongation(min)	ASTM D882	% MD	140
		% TD	120
Shrinkage(max) at 150°C/30min	ASTM D1204	% MD	2.5
		% TD	1.5

**TECHNICAL SPECIFICATION SHEET
POLYESTER FILM**

ITEM: BOPET FILM 6020, CLEAR, 300 MICRONS

PROPERTIES	TEST METHOD	UNIT	VALUES
THICKNESS	ASTM D3/4	MICRON	300
YIELD	JPFTM	M2/KG	2.9
HAZE(MAX)	ASTM D1003	%	90
TOTAL LUMINOUS TRANSMISSION	ASTM D1003	%	67
CO-EFFICIENT OF FRICTION(MAX)	ASTM D1894	STATIC	0.35
TENSILE STRENGTH(MIN)	ASTN D882	KG/M2 MD	1600
		KG/M2 TD	1600
ELONGATION(MIN)	ASTM D882	% MD	140
		% TD	120
SHRINKAGE(MAX) AT 150°C/30MIN	ASTM D1204	% MD	2.5
		% TD	1.5

TECHNICAL SPECIFICATION SHEET

POLYESTER FILM

ITEM: BOPET FILM 6021, MILKY WHITE, 350 MICRONS

PROPERTIES		UNIT	REMARK	TESTING RESULT	STANDARD
APPEARANCE		/		QUALIFIED	GB/T13541.2-2009
STANDARD THICKNESS		MIC		350	GB/T13541.2-2009
THICKNESS TOLERANCE		%		±2	±4
ANTI-TENSILE STRENGTH	MD	MPA		174	≥110
	TD			177	≥110
TENSILE STRENGTH IN MACHINE	MD	%		178	≥80
	TD			145	≥80
ELONGATION IN MACHINE	MD	%	150°C 30MIN	0.97	≤2.0
	TD			0.39	≤2.0
ELECTRIC STRENGTH		V/UM	ELECTRODE 6MM; IN VARYING VOLTAGE GAS-OIL	52	≥50
SURFACE RESISTIVITY		Ω		1.7X10 ¹⁴	≥10 ¹⁴
VOLUME RESISTIVITY		Ω.M		2.30X10 ¹⁵	≥10 ¹⁴
DENSITY		G/CM ³		1400	1400±10
MELTING POINT		°C		261	≥256

TECHNICAL SPECIFICATION SHEET

POLYESTER FILM

ITEM: BOPET FILM 6020, CLEAR, 250 MICRONS

PROPERTIES		UNIT	REMARK	TESTING RESULT	STANDARD
APPEARANCE		/		QUALIFIED	GB/T13541.2-2004
STANDARD THICKNESS		MIC		250	GB/T13541.2-2004
THICKNESS TOLERANCE		%		±2	±4
ANTI-TENSILE STRENGTH	MD	MPA		177	≥140
	TD			208	≥140
TENSILE STRENGTH IN MACHINE	MD	%		167	≥80
	TD			117	≥80
ELONGATION IN MACHINE	MD	%	150°C 30MIN	1.0	≤2.0
	TD			0.6	≤2.0
ELECTRIC STRENGTH		V/UM	ELECTRODE 6MM; IN VARYING VOLTAGE GAS-OIL	60	≥60
SURFACE RESISTIVITY		Ω		8.19X10 ¹⁴	≥10 ¹⁴
VOLUME RESISTIVITY		Ω.M		1.07X10 ¹⁵	≥10 ¹⁴
DENSITY		G/CM ³		1395	1390±10
MELTING POINT		°C		261	≥256