

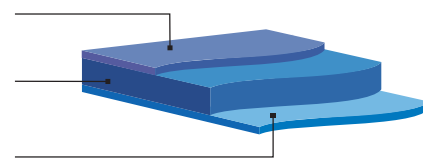
Description

Transparent heat sealable shrinkable BOPP film with a very low coefficient of friction for “hard” paper packs packaging on the high-speed machines

Untreated heat sealable layer with a very low coefficient of friction

Transparent core layer

Treated heat sealable layer



Properties		Unit	Limit	Method	Value			
Thickness		µm	±5%	WATERFALL PRO	16	18	20	25
Density		g/cm ³	±10%		0,91			
Weight m ²		g/m ²	±5%		14,56	16,38	18,20	22,75
Tensile strength	MD	N/mm ² (MPa)	not less	ASTM D882 ISO 527 GOST 14236	150			
	TD				260			
Elongation at break	MD	%	not more		180			
	TD				70			
Kinetic coefficient of friction	untreated side/ untreated side	-	±0,05	ASTM D1894 ISO 8295 GOST 27492	0,15			
Shrinkage at 120°C, 5 min	MD	%	±1,0	ASTM D1204 ISO 11501 GOST 18616	8,5			
	TD				6,5			
Shrinkage at 130°C, 15 min	MD	%	±2,0		12,0			
	TD				12,0			
Heat sealing strength at 130°C, 1 bar, 1 sec	treated side/ untreated side	N/15 mm	not less	ASTM F88/F88M D882 ISO 527 GOST 27319	2,0			
Heat sealing temperature	treated side/ untreated side	°C	-	WATERFALL PRO	105-140			
Haze	-	%	not more	ASTM D1003 ISO 14782 GOST 15875	2,8			
Gloss	untreated side	%	not less	ASTM D2457 ISO 2813	85			
Surface tension*	treated side	mN/n (dyn/cm)	not less	ASTM D2578 ISO 8296	38			

MD – Machine Direction; TD – Transverse Direction
 *Measure after treatment with n-heptane

Main characteristics

- activated for printing
- resistant to scratching and abrasion
- low stable coefficient of friction asymmetric, including over heated surfaces
- high hardness
- high gloss
- high transparent

Application

- for wrapping “hard” paper packs of cigarettes, cigarette blocks, tea, marshmallows, sweets, etc.
- for film tightening of packs due to shrinkable properties of the film
- for tightening packs small and medium sizes

For packing

- on the high-speed HFFS packaging machines with a thertotunnel
- on the high-speed HFFS packaging machines without a thertotunnel where the film shrink is able due to heating of the weld seal
- with hot (heat sealing) seal formation
- “hard” paper packs

For printing

- high-quality rotogravure and flexographic print
- with the use of special paints

Storage

- Films should be stored on the pallets in a closed dry place and should not be exposed to direct sunlight, at a safe distance of not less than 1 m from heating devices or anything that can cause damage the package.
- The film should be kept in workplace not less than 48 hours before being used.
- Guaranteed storage period – 6 months from production date.

Treatment

- The guaranteed period for maintaining the minimum permissible level of surface tension on the activated film surface from the date of manufacture, subject to proper storage conditions, is:
- for all film types (except metallized) – 6 months;
 - for metallized film – 3 months.

Recycling

- In the process of printing on activated tobacco films it is recommended not to perform corona treatment.

Reeling

- Maximum roll diameter: 500 mm
- Film width in a roll from 90 to 450 mm
- Diameter of paper cores (inside): 76 mm

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