

Mitsubishi Chemical America, Inc.

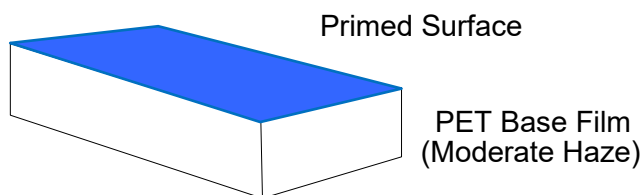
Description

Hostaphan® 2PA1N polyester film is chemically primed on one surface for adhesion to polyolefins. This clear film combines high strength and flexibility with good dimensional stability and excellent chemical resistance.

Performance

Hostaphan® 2PA1N film is designed for thermal lamination or extrusion coating with polyolefins. The chemically primed surface adheres strongly to polymers and blends commonly used in packaging sealant layers. In particular, the primed surface demonstrates outstanding adhesion to polypropylene and linear low density polyethylene (LLDPE). This film is used in hot nip lamination and extrusion coating for packaging applications.

Schematic of Hostaphan® 2PA1N



Benefits

- Outstanding adhesive bond after thermal lamination to LLDPE or polypropylene
- Bond strength is not degraded by exposure to heat and moisture. Eliminates moisture sensitivity issues of PEI-based primers
- Moderate adhesion to LDPE and mild adhesion to HDPE. Polyethylene blends can tune bond strength for peelable constructions
- No corona, atmospheric treatment, or additional priming required prior to extrusion coating or lamination.
- Lower extrusion coating temperatures since it is not necessary to oxidize the polyethylene melt for adhesion
- Replace solvent-based or polyurethane adhesive systems with thermal lamination in retort structures
- Available thickness range: 0.47-7 mil (12-175 micron)

FDA Status

Both the plain side and the chemically primed side of Hostaphan® 2PA1N can be used for direct food contact applications subject to limitations found in 21 CFR 177.1630 and in accordance with good manufacturing practices. For more information, contact a Polyester Film Sales Representative.

Typical Properties of Hostaphan® 2PA1N Film

The Hostaphan® 2PA1N property values below are typical measurements. Further guidance on series selection, functional behavior by end use, film processing, standard roll configuration and gauges is available through a Polyester Film Sales Representative.

Property		Unit of Measure	Typical Value	Test Method
Area Yield	0.47 mil (12 µm)	ft ² /lb m ² /kg	286.5 58.7	ASTM D 4321
	2.0 mil (50 µm)	ft ² /lb m ² /kg	68.8 14.1	
Tensile Strength	MD	psi kg/cm ²	28,000 1,980	ASTM D 882
Yield Strength (F5)	MD	psi kg/cm ²	15,000 1,050	ASTM D 882
Ultimate Elongation	MD	%	120	ASTM D 882
Modulus	MD	psi kg/cm ²	500,000 35,200	ASTM D 882
Coefficient of Friction A/B	Static	--	0.35	ASTM D 1894
	Kinetic	--	0.32	
Shrinkage	MD	%	1.6	30 min. at 150°C
	TD		0.4	
Density		g/cm ³	1.395	ASTM D 1505
Total Haze*	0.47 mil (12 µm)	%	2.7	ASTM D-1003
	2.0 mil (50 µm)		7.0	
Primed Surface Energy		dynes/cm	30	Water Contact Angle (EoS Model)
Peel Strength from Polypropylene		lbf/inch g/inch	> 6.5 >3000	ASTM D-903 (180° Peel)
Peel Strength from LLDPE		lbf/inch g/inch	> 6.5 >3000	ASTM D-903 (180° Peel)
Peel Strength from LDPE		lbf/inch g/inch	0.85 390	ASTM D-903 (180° Peel)
Peel Strength from HDPE		lbf/inch g/inch	0.25 120	ASTM D-903 (180° Peel)

* Values for reference data only. Contact a Polyester Film Sales Representative for actual gauges available.
Approved MG 1/2021

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