

2EA5N Polyethylene Adherable Film



Mitsubishi Chemical America, Inc.

Product Bulletin

Description

Hostaphan® 2EA5N polyester film is chemically primed on one surface for adhesion to polyethylene-based polymers. This clear film combines high strength and flexibility with good dimensional stability and excellent chemical resistance.

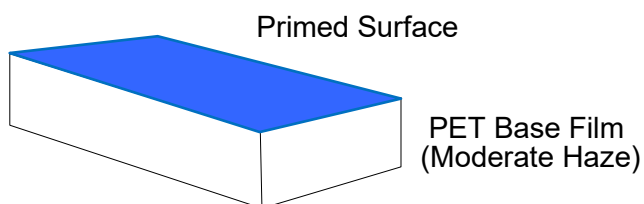
Performance

Hostaphan® 2EA5N film is designed for thermal lamination or extrusion coating with polyethylene blends containing LLDPE or acid-modified polyethylene. The chemically primed surface adheres to polymers and blends commonly used in packaging sealant layers. 2EA5N can cross-link with acid-modified polyethylene during thermal processing, resulting in outstanding bond strength.

FDA Status

The plain side and the chemically primed side of Hostaphan® 2EA5N 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 your Polyester Film Sales Representative

Schematic of Hostaphan® 2EA5N



Benefits

- Robust adhesive bond after thermal lamination to LLDPE and LLDPE-based blends
- Moderate adhesion to LDPE. Polyethylene blends can tune bond strength for peelable laminations.
- Bond strength is not degraded by exposure to heat and moisture. Eliminates moisture sensitivity issues of PEI-based primers
- Thermally cross-links with acid-modified polyethylene for outstanding bond strength
- 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 - 7.0 mil (12 - 175 micron)

Typical Properties of Hostaphan® 2EA5N

The Hostaphan® 2EA5N 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	
Peel Strength from LLDPE		lbf/inch g/inch	> 5.0 >2200	ASTM D-903 (180°Peel)
Peel Strength from Typical Sealant Blend		lbf/inch g/inch	3.5 1600	ASTM D-903 (180°Peel)
Peel Strength from LDPE		lbf/inch g/inch	0.70 320	ASTM D-903 (180°Peel)

* Values for reference data only. Contact a Polyester Film Sales Representative for actual gauges available.
Approved MG 1/2022

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