

Hostaphan® WIN EHB

White PET film with chemical treatment for enhanced adhesion

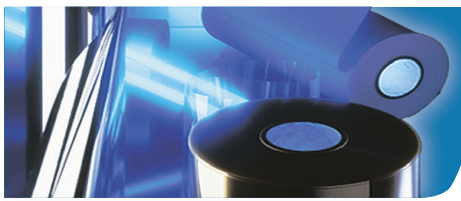
Hostaphan® WIN EHB is a white film. Both sides are chemically treated for good adhesion, especially for good adhesion to EVA in the module lamination process, but also to other substances such as adhesives to fix a junction box.

Hostaphan® WIN EHB has the outstanding mechanical and electrical properties and general performance of bi-axially stretched polyester films.

Typical properties

Property	Thickness µm	Units	Value		Test Method	Test Conditions
			MD	TD		
MECHANICAL						
Tensile strength	125 175, 185 250	N/mm ²	180 180 170	220 210 200	ISO 527-1 and ISO 527-3 Sample type 2	Test speed 100 %/min.; 23 °C, 50 % r.h.
Elongation at break	125 175, 185 250	%	180 180 180	120 120 120	ISO 527-1 and ISO 527-3 Sample type 2	Test speed 100 %/min.; 23 °C, 50 % r.h.
Young's Modulus	125 175, 185 250	N/mm ²	4100 4000 3900	4900 4800 4700	ISO 527-1 and ISO 527-3 Sample type 2	Test speed 1 %/min.; 23 °C, 50 % r.h.
THERMAL						
Shrinkage	125 175, 185 250	%	1 1 1	0.7 0.6 0.5	DIN 40634	150°C, 15 min.
OPTICAL						
Transparency	125 175, 185 250	%		17 12 8	ASTM-D 1003-61 method A	-
SURFACE						
Gloss	125 175 185 250	-		55 60 65 70	DIN 67530	Measuring angle 20°
PHYSICAL/CHEMICAL						
Density	125 - 250	g/cm ³		1.45	ASTM-D 1505-68 method C	23°C
BARRIER						
Water vapour	125 175 185 250	g/m ² x d		5 3.5 3.4 2.5	DIN 53122	37,8°C, 90% r.h.
HEAT SEAL/PEEL PARAMETERS						
EVA adhesion (Initial value)	125 - 250	N/15mm		> 50	With Etimex 486 (Internal method)	Internal test

MD = Machine direction, TD = Transverse direction



Delivery program Hostaphan® WIN EHB

Thickness μm	Yield	
	g/m^2	m^2/kg
125	181	5.52
175	254	3.94
185	259	3.86
250	363	2.76

Roll widths and lengths on request. Core diameter: 152.4 mm (6")

UV transmission (WIN 250 EHB - 250 μm)

	Hostaphan® WIN 250 EHB				
Wavelength in mm	250	300	360	390	400
Transmission in %	< 1	< 1	< 1	< 2	< 20

UV stability

Due its stabilization Hostaphan® WIN is extremely UV stable. Hostaphan® WIN had been exposed to artificial weathering in a QUV device for 10.000 h so far (conditions see below). After this time Hostaphan® WIN did not fail mechanically (less than 5 % elongation at break) and is expected to survive significantly longer than this. During this time Hostaphan® WIN showed a marginal increase of 3.5 units in b^* (CIE) and no change in a^* . Hostaphan® WIN lost approx. 12 units of whiteness according to Berger during weathering so far.

Weathering conditions (adopted according to DIN EN ISO 4892-3:2006):

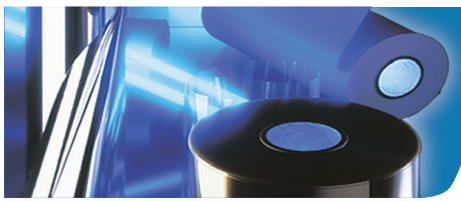
Device: QUV/spray from Q-panel (UV fluorescence lamp)

Test cycle:

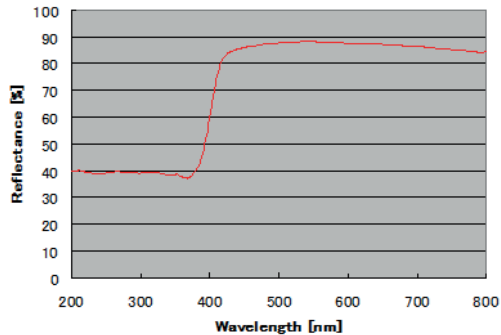
- 4 h UVA irradiation at 60 °C (black panel temperature)
- 5 min water spray while irradiated
- 4 h condensation at 50 °C
- back to a

Irradiation intensity = 0.89 W/m²/nm at 340 nm (UV-A)

All data applies for the film only. Any final product has to be tested separately.



Reflectance spectrum



The properties shown in this technical data sheet only apply to the film itself. We cannot guarantee the properties of an intermediate or final product made from or using the film. Instead, the intermediate or final product must be subjected to standard industrial testing.

This data sheet reflects our state of knowledge at the time this was prepared. The purpose is to provide an overview of the characteristics of our products and their potential uses. The values given reflect the typical characteristics of the film. They are not specification limits. They are neither a guarantee of specific properties nor the suitability of products in specific applications. The user must observe industrial property rights, such as patents or trademarks. The quality of our products is covered by the terms of the General Conditions of Sale of MITSUBISHI POLYESTER FILM GmbH.