



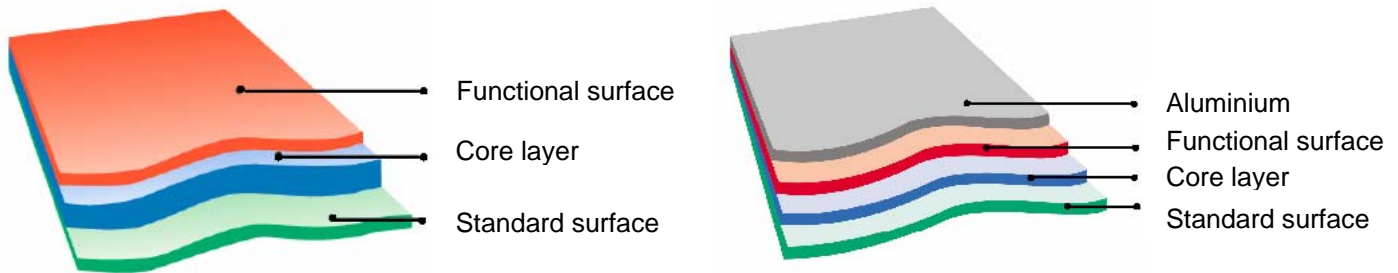
# Hostaphan<sup>®</sup> RHBV, RHBV MI and RHBV MO

## Film for high barrier vacuum deposition

Hostaphan<sup>®</sup> RHBV is a biaxially oriented film made of polyethylene terephthalate (PET) with a structure optimized to offer previously unattainable barrier properties against oxygen, water vapour and other gases as well as aroma substances after vacuum coating with aluminium, Al<sub>2</sub>O<sub>3</sub> or SiO<sub>x</sub>.

Hostaphan<sup>®</sup> RHBV MI and RHBV MO are metallized on the functional layer.

### Layer structure of Hostaphan<sup>®</sup> RHBV, RHBV MI and RHBV MO



### Typical properties for RHBV 12

Property	Thickness µm	Units	Value		Test Method	Test Conditions
			MD*	TD*		
<b>MECHANICAL</b>						
Tensile strength	12	N/mm <sup>2</sup>	250	250	ISO 527-1 and ISO 527-3 Sample type 2	Test speed 100 %/min.; 23 °C, 50 % r.h.
Elongation at break	12	%	130	120	ISO 527-1 and ISO 527-3 Sample type 2	Test speed 100 %/min.; 23 °C, 50 % r.h.
Young's Modulus	12	N/mm <sup>2</sup>	4400	5000	ISO 527-1 and ISO 527-3 Sample type 2	Test speed 1 %/min.; 23 °C, 50 % r.h.
F5-value (stress to obtain 5% elongation)	12	N/mm <sup>2</sup>	105	100	ISO 527-1 and ISO 527-3 Sample type 2	Test speed 100 %/min.; 23 °C, 50 % r.h.
<b>THERMAL</b>						
Shrinkage	12	%	1.5	0.1	DIN 40634	150°C, 15 min.



Property	Thickness μm	Units	Value		Test Method	Test Conditions
			MD*	TD*		
<b>OPTICAL</b>						
Haze	12	%	< 2.5		ASTM-D 1003-61 method A	Enlarged measurement angle
<b>SURFACE</b>						
Coefficient of friction (static)	12	-			DIN53375 or ASTM-D 1894	-
Standard surface/ Standard surface			0.4			
Standard surface/ Functional surface			0.4			
Functional surface/ Functional surface			blocks			
Gloss	12	-	220		DIN 67530	Measuring angle 20°
<b>PHYSICAL/CHEMICAL</b>						
Density	12	g/cm <sup>3</sup>	1.4		ASTM-D 1505-68 method C	23°C

MD = Machine direction, TD = Transverse direction

### Typical barrier data achievable with Hostaphan® RHBY 12\*

Permeant	RHBY without vacuum coating	Metallized OD 2.6-3.0 (RHBY 12 MI)	SiOx- coated	Al <sub>2</sub> O <sub>3</sub> - coated	Units	Test Method	Test Conditions
Oxygen	110	0.2	0.5	1.8	cm <sup>3</sup> /m <sup>2</sup> x d x bar	DIN 53380 Part 3	23°C, 50% r.h.
Water vapour	16	0.2	1.0	1.6	g/m <sup>2</sup> x d	DIN 53122 Part 2	37,8°C, 90% r.h.

\*) unlaminated

The measurement of barrier in this range can be problematic. Please contact us if you need support in this matter.


**Delivery program Hostaphan® RHBV, RHBV MI and RHBV MO**

Thickness $\mu\text{m}$	Thickness range $\mu\text{m}$	Yield		Roll length m	Roll diameter mm	Roll length m	Roll diameter mm
		$\text{g}/\text{m}^2$	$\text{m}^2/\text{kg}$				
12	$\pm 0.5$	17	60	24 000	650	36 000	775

Other roll lengths on request. Core diameter: 152.4 mm (6")

Hostaphan® RHBV MI has the metallized side wound inside, Hostaphan® RHBV MO has the metallized side wound outside.

Hostaphan® RHBV, RHBV MI and RHBV MO are permitted for food contact according to the current version of EC Directive 2002/72/EC and FDA regulation 21 CFR 177.1630 under the conditions set out in our current Declaration of Compliance. Before using Hostaphan® RHBV, RHBV MI and RHBV MO in a food contact article, please request this Declaration of Compliance.

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. It neither guarantees 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.