



Hostaphan® RUF

Transparent, flame retardant and UV stable polyester film

Hostaphan® RUF is a flame retardant and UV stable film made of polyethylene terephthalate (PET) for several protective applications. Good bonding strength is achievable with coatings, adhesives and printing. Further outstanding properties are high mechanical strength, dimensional stability and glossy surface.

Typical properties

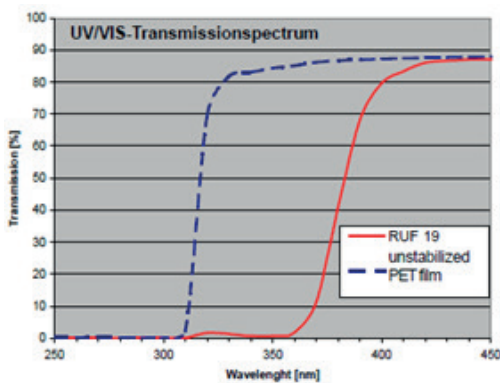
Property	Thickness μm	Units	Value		Test Method	Test Conditions
			MD	TD		
MECHANICAL						
Tensile strength	19	N/mm ²	240	250	ISO 527-1 and ISO 527-3 Sample type 2	Test speed 100 %/min.; 23 °C, 50 % r.h.
Elongation at break	19	%	100	110	ISO 527-1 and ISO 527-3 Sample type 2	Test speed 100 %/min.; 23 °C, 50 % r.h.
Young's Modulus	19	N/mm ²	4700	4900	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)	19	N/mm ²	110	100	ISO 527-1 and ISO 527-3 Sample type 2	Test speed 100 %/min.; 23 °C, 50 % r.h.
THERMAL						
Shrinkage	19	%	1.7	0.3	DIN 40634	150°C, 15 min.
OPTICAL						
Transparency	19	%	90		ASTM-D 1003-61 method A	-
Haze	19	%	2.5		ASTM-D 1003-61 method A	Enlarged measurement angle
SURFACE						
Gloss	19	-	190		DIN 67530	Measuring angle 20°
PHYSICAL/CHEMICAL						
Density	19	g/cm ³	1.4		ASTM-D 1505-68 method C	23°C
ELECTRICAL						
Dielectric dissipation factor (tan δ)	19	-	0.0083		DIN 40634 or VDE 0345	23°C, 1 kHz
Volume resistivity	19	$\Omega \times \text{cm}$	6×10^{16}		DIN 40634 or VDE 0345	23°C, DC
Dielectric constant	19	-	3.46		DIN 40634 or VDE 0345 in air	23°C, 1 kHz



Property	Thickness μm	Units	Value		Test Method	Test Conditions
			MD	TD		
FLAMMABILITY TESTING						
Building materials and components	19	-	B2 B1		DIN 4102-1	Edge ignition
Automotive use	19	mm/min.	0		FMVSS 302 (DIN 75200)	-
Use in public transport (rail)	19	-	S4 SR2 ST2		DIN 5510	-
Aviation use Smoke density Toxicity Flammability (Vertical test (12s))	19	-	complies		FAR 25.853 (d) ABD 0031 ABD 0031 ABD 0031 FAR 25.853 b (4) (App.F to part 25 part 1 S(a), (1), (ii))	

MD = Machine direction, TD = Transverse direction

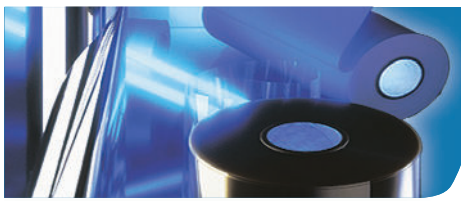
Please note that when Hostaphan® RUF is combined with other materials or articles, the performance of the final product depends on all components and the geometry. Rigorous qualification and safety testing of the final product is always necessary, as unexpected interactions could occur.



Hostaphan® RUF can easily be coated or printed with functional layers. The film is optimized for high speed processing.

Further details can be given on request.

The actual burning characteristics and the longterm thermal endurance must be tested on final products manufactured using Hostaphan® RUF.



Delivery program Hostaphan® RUF

Thickness <i>μm</i>	Yield		Roll length <i>m</i>	Roll- diameter <i>mm</i>
	<i>g/m²</i>	<i>m²/kg</i>		
19	27	38	On request	On request

Core diameter: 152.4 mm (6")

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.