



# **HOSTAPHAN™**

## **Protective UV Stabilized Films**



Mitsubishi Polyester Film GmbH

# Mitsubishi Chemical Group

With a vast network of affiliate companies, the Mitsubishi Chemical Group has both the organisation and infrastructure to realise local and global synergies. Over 70,000 employees work in 30 different countries to deliver innovative solutions for customer applications. Thanks to the intensified collaboration and coordination on a regional and global level, Mitsubishi Chemical Group companies are uniquely positioned to meet the changing demands of key industries including automotive, aerospace, medical, packaging and 3D printing.

As a global leader and one of the largest suppliers of biaxially oriented polyester film (polyethylene terephthalate / PET), the Mitsubishi Polyester Film Group is both, a

supplier of choice for a wide range of innovative high-quality customized HOSTAPHAN™ boPET films as well as for customized product solutions. In joint research activities we develop individual solutions together with our customers.

Our technological competence is regionally anchored and intensified through our global company-group. Along with our modern production lines, with co-extrusion and inline coating capabilities integrated in the process, it allows us to offer a broad range of value added performance options for our HOSTAPHAN™ products.

We make the right PET film. For the needs of today and the aspirations of tomorrow.



## KAITEKI - Our Philosophy

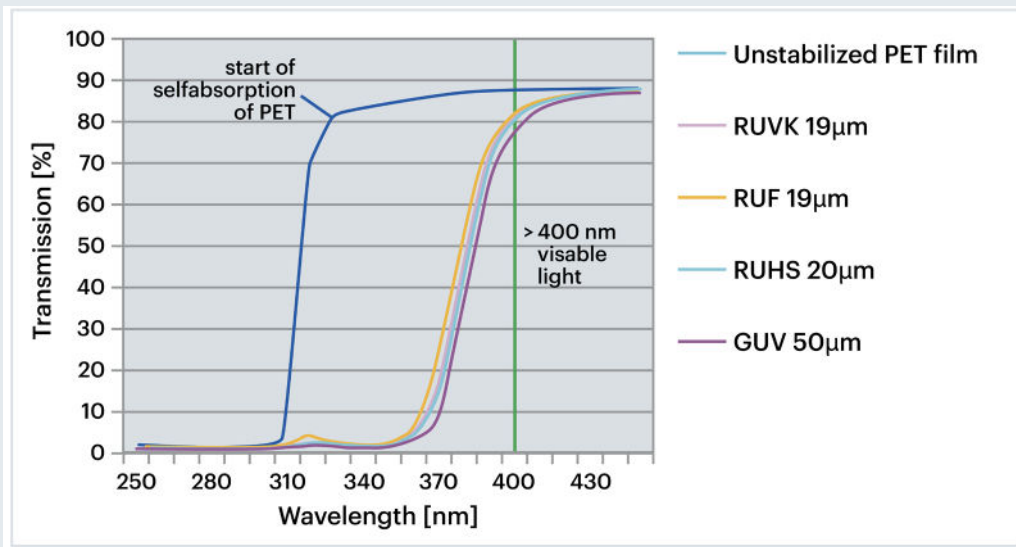
At Mitsubishi Chemical Group, sustainability is more than a concept - it's a way of life. Through our focus on improving the health and well-being of people and the planet, we create innovative sustainable solutions globally. The sustainable well-being of people and our planet Earth - we call it **KAITEKI**.

We believe our role in the chemical industry is to be partners in innovation, developing material solutions that support a circular economy and sustainability of the earth and society. This overarching **KAITEKI** Philosophy is our guiding principle as we use LESS to have MORE.

# UV Stabilized Films

The UV stabilized “Protective Films” from Mitsubishi Polyester Film GmbH are biaxially oriented films made from polyethylene terephthalate (PET). These films offer good weathering resistance and very high absorption of UV radiation. Other important features of these films include high mechanical strength and good dimensional stability. They also enable good adhesive bond strength to be achieved in coating, printing and laminating.

UV/VIS-Transmission spectrum of different HOSTAPHAN™ film types

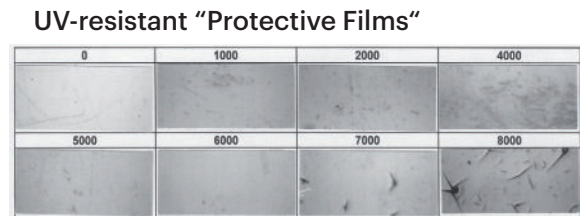
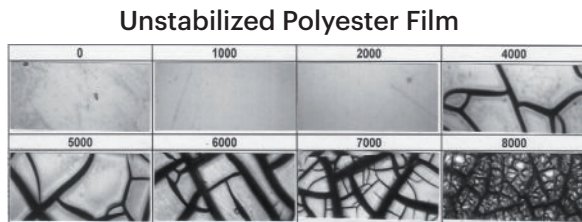


# Weather Resistance

The long-term weathering resistance of our UV stabilized "Protective Films" in outdoor applications has been studied in a Xenon weather-o-meter climate test according to ISO 4892.

This accelerated weathering test about 10,000h simulates 10 years outdoor exposure under central European conditions. An unstabilized film is completely destroyed after about 8,000h while the stabilized film still is mechanically intact.

The figures show photomicrographs of the film surface after accelerated weathering (time in hours).



Significantly higher resistance of the UV resistant film under the same conditions.



# HOSTAPHAN™ UV Stabilized Products

## **HOSTAPHAN™ GUV - Glass clear film with UV protection**

The glass clear film for outdoor applications and UV absorption offers a very smooth and glossy surface.

## **HOSTAPHAN™ RUVK - Universal film with UV protection**

This highly transparent PET film allows good adhesive bond strength to be achieved with coatings and vacuum metallized layers. The surface of HOSTAPHAN™ RUVK is also highly glossy.

## **HOSTAPHAN™ RUHS - Heat sealable film with UV protection**

HOSTAPHAN™ RUHS is a transparent, coextruded film with two different surfaces. One side of this film is heat sealable to PET and to itself. The other side is a standard surface.

## **HOSTAPHAN™ MUVK - Matte film with UV protection**

HOSTAPHAN™ MUVK is a matte coextruded UV resistant PET film with a high haze. The special structure of the film offers a matte but well defined and high contrast printing image.

## **HOSTAPHAN™ MUHS - Matte heat sealable film with UV protection**

HOSTAPHAN™ MUHS is a coextruded matte and UV resistant PET film. It has an excellent sealability against PET on one side, a low gloss surface on the other side and a very high resistance against high absorption of UV radiation.



# HOSTAPHAN™ UV Stabilized Products

## **HOSTAPHAN™ RUF - Flame retardant film with UV protection**

HOSTAPHAN™ RUF is a highly transparent, glossy film with excellent flame retardant and UV protective properties.

## **HOSTAPHAN™ UVO - White opaque film with UV protection**

HOSTAPHAN™ UVO combines extremely low transparency with a high degree of whiteness. This film is especially weather resistant in outdoor applications.

## **HOSTAPHAN™ WUV - White film with UV protection**

HOSTAPHAN™ WUV is a white film with good weathering resistance for outdoor applications.

## **HOSTAPHAN™ WUF - White film with UV protection and improved fire behavior**

HOSTAPHAN™ WUF is a white film which offers besides its good weathering resistance an improved fire behavior compared with a white standard PET film.



## HOSTAPHAN™ FILM TYPES FOR UV-PROTECTION

Product Type	Description	Thickness in $\mu\text{m}$
HOSTAPHAN™ GUV	Glass clear film with UV protection	50, 75
HOSTAPHAN™ RUVK	Universal film with UV protection	19
HOSTAPHAN™ RUHS	Heat sealable film with UV protection	20, 30
HOSTAPHAN™ MUVK	Matte film with UV protection	15
HOSTAPHAN™ MUHS	Matte heat sealable film with UV protection	20
HOSTAPHAN™ RUF	Flame retardant film with UV protection	19
HOSTAPHAN™ UVO	White opaque film with UV protection	250
HOSTAPHAN™ WUV	White film with UV protection	23, 36, 50, 55, 65, 30
HOSTAPHAN™ WUF	White film with UV protection and improved fire behavior	30

For detailed technical information, you can obtain a special technical data sheet for each film grade.

## Your Partner in Innovation

Partnering with Mitsubishi Chemical Group ensures working with a supplier who has a global network of researchers on the cutting edge of PET innovation. Whether your challenge is product or service related, we commit to bringing you new ideas to discover the next ground-breaking solution for your business.



## Our Global R&D Team

- Dedicated R&D Team for your development needs with collaboration globally across our R&D Teams
- Pilot line capability available for small scale production and initial new product developments

Please note that when our HOSTAPHAN™ boPET films are 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.

This brochure 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.

## Contact one of our HOSTAPHAN™ Film experts

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