

HOSTAPHAN® DIAWRAP® TECHBARRIER®

for a wide range of packaging applications







Innovative films for packaging with the highest demands especially in the food sector

As a global leader and one of the largest suppliers of polyester film (polyethylenterephthalate/PET), the Mitsubishi Polyester Film Group is both, a supplier of choice for a wide range of innovative high-quality customized HOSTAPHAN® PET 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.

At Mitsubishi Polyester Film GmbH, quality management includes the constant optimization of the used raw materials as well as our products and production procedures and the commitment to stringent environmental and safety standards at every stage of the production process. Mitsubishi Polyester Film GmbH is certified by DIN EN ISO 9001, DIN EN ISO 14001, DIN EN ISO 50001, BRC and DIN EN ISO 14021:2016. We are the right partner for your business.

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

Product variety and performance

in the thickness range of 6.8 to 500 micron

The range of applications of HOSTAPHAN® packaging films is diverse. Flexible packaging, lidding films or metallized packaging films – all is possible.



- · Films for antislip
- · Films for lidding
- Films for flexible pouches
- Films for cardboard lamination
- Films for labels and release liners
- Films for highest barrier values after vacuum coating
- · Peelable and sealable films
- · Packaging films for fresh foods
- · Packaging films for frozen foods
- Packaging films for non-food applications
- Packaging films for high barrier applications
- Packaging films for retortable applications





Variants. Variety. Advantages.

- Easy machinability
- High mechanical strength
- Dimensional stability over a broad temperature range
- · Surface treatability
- · High clarity
- Tear resistance
- High puncture resistance
- Excellent adhesion and release
- Superior printability
- Moisture and solvent resistance
- Barrier against oxygen and water vapour after vacuum coating



Polymer types **Functional Layer Coatings and surfaces** Co-polyester Sealable Glass clear Acrylate Matte Peelable Silicone White / opaque Antislip Antistatic** UV-stable High barrier Antifog Coloured Release Corona Black opaque Metallizing Thermoformable Lubricant Post consumer recyclate (PCR)*

Antimony free

^{*}for ambient temperature and cooled products

^{**}reduced surface resistivity



Polyester film solutions

for the circular economy of tomorrow



Sustainability is a topic we care strongly about. Our company is managed according the Japanese KAITEKI philosophy, which combines the aspects of sustainability, health and quality of life.

HOSTAPHAN® polyester film consists mainly of polyethylenterephthalate – PET. Compared to other mass plastics, PET already has a high re-use ratio. Today, PET is mechanically recycled, which is possible on an industrial scale.

Almost unique is the availability of films with Post Consumer Reclaim (PCR) suitable for direct food contact.

HOSTAPHAN® Polyester films with PCR

HOSTAPHAN® PCR is a polyester film containing PCR resin in the base layer of the film.

The outer layers are unchanged to its tried and tested standard film counterparts assuring the same surface performance known from HOSTAPHAN® RNK or WDW in running properties and coating performance.

Product Type	Description	Available Thicknesses
HOSTAPHAN® PCR PR3F	Transparent film for applications with direct food contact	12, 19, 23, 30, 36, 50,75
HOSTAPHAN® PCR PR3F 2CSR	Acrylic coated film for applications with direct food contact	12, 19, 23, 30, 36, 50,75
HOSTAPHAN® PCR PR3N 2PRK	Transparent film for release liner without direct food contact	19, 23, 30, 36
HOSTAPHAN® PCR PR3N 2SLK	Transparent film for release liner applications without direct food contact	19, 23, 30, 36
HOSTAPHAN® PCR WD3F	White film for lidding and label applications with direct food contact	50. 65
HOSTAPHAN® PCR WD3F CSRE	Acrylic coated white film for lidding applications with direct food contact	50, 65

Typical applications of HOSTAPHAN® PCR films:

- Packaging laminations
- Liddings
- Release liner for labels
- Tapes
- Processing film



HOSTAPHAN® DIAWRAP® TECHBARRIER®

the ideal materials for packaging

HOSTAPHAN® RWS AF/RHS

Transparent peelable and sealable lidding films for fruits, salads and vegetables

- · Sealable to all major PET based tray substrates
- · Low seal temperature
- · Antimony free
- High transparency
- Superior antifog properties

HOSTAPHAN® RBB/RHST/RMST

Transparent films for roasting bags

- Antimony free
- · Dual ovenable
- No health risk for customers
- Can easily be welded to form bags
- · Excellent convertibility

HOSTAPHAN® RPSM/RPSB/RPSP PL/RHS/RHST

Lidding films for ready meals

- Sealable to all major PET based tray substrates
- · Dual ovenable
- Produced in solvent free process
- · Antimony free
- · Excellent and trouble-free convertibility
- High mechanical strength
- Sealant will not form any threads or angel hairs when being removed from tray substrate

HOSTAPHAN® WDW

White lidding film

- Reliable processing on existing machinery
- Excellent product presentation
- Microwaveable
- High tear and puncture resistance
- · Seal layer to be applied

DIAWRAP® SUPER

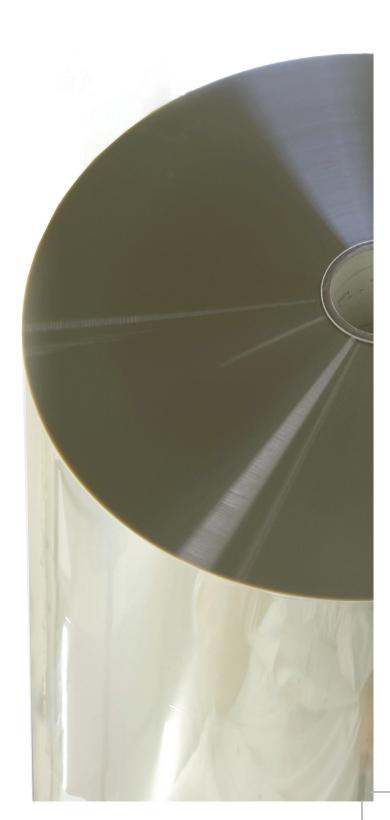
Stretch wrapping film suitable for food applications

- Excellent machinability
- Very good oxygen, water vapour and CO₂ barrier compared to PVC wrap film
- No solvents and phthalate plasticizers used in production, no hydrogen chloride generated upon its incineration
- · Waste reduction due to high yield per weight

TECHBARRIER®

Transparent high barrier film with SiO_X-coating

- Environmental friendly material due to reduced packaging weight and replacing of aluminium
- Suitable for sterilization
- Microwaveable
- Content is visible as there is no metal barrier
- Extended shelf life
- · Recyclable, can be used for mono PET-packaging



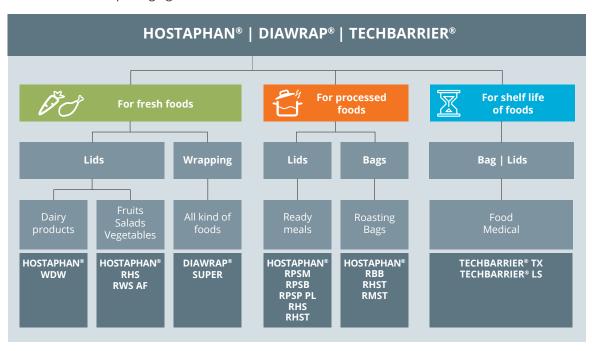




HOSTAPHAN® DIAWRAP® TECHBARRIER®

a wide range of products for all applications

In addition to PET films which are used in laminates for flexible packaging applications, Mitsubishi Polyester Film GmbH also offers a wide range of products, which are used as single web films for direct contact food packaging.



Product Type	Description	Available Thicknesses		
Heat sealable Films				
HOSTAPHAN® RHS	Heat sealable transparent film	12, 15, 20, 25, 30		
HOSTAPHAN® RHST	Heat sealable film for cooking and roasting bags	15, 20, 30		
HOSTAPHAN® RWS AF	Heat sealable film with antifog properties	25, 30, 40		
HOSTAPHAN® RMST	Heat sealable film with lower COF	20		
Peelable Films				
HOSTAPHAN® RPSM AF	Medium peel film with antifog properties	19, 25, 40		
HOSTAPHAN® RPSM	Medium peel film	19, 25, 40		
HOSTAPHAN® RPSB	Medium to strong peel film	19, 25, 40		
HOSTAPHAN® RPSP AF	Easy peel film with antifog properties	19, 25		
HOSTAPHAN® RPSP PL	Easy peel film	19, 25		
Uncoated Films				
HOSTAPHAN® WDW	White film for lidding	12, 23, 36, 50, 55, 65		
HOSTAPHAN® RBB	Film for cooking and roasting bags	12		
Wrapping Films				
DIAWRAP® SUPER	Stretch wrapping film for automatic and manual use	10.5, 11.5, 12		
High Barrier Films				
Techbarrier® TX	Transparent film with SiO _X -coating	12		
Techbarrier® LS	Transparent film with SiO _X -coating and top coat	12		

HOSTAPHAN® WDW

the high quality polyester film for lids

HOSTAPHAN® WDW is used in many countries with great success as an alternative material for lidding of cups. The film is heat seal coated and printed by converters and supplied as rolls or die cut lids.

Main applications are:

- Yoghurts
- Desserts
- Instant soups
- Instant noodle dishes
- Mineral water
- Juices
- Margarine



Product advantage

Benefits for the consumer

- No damage of the lid during transport
- · Product stays fresh
- No leakage of product
- Easy peel of the lid without tearing
- Safe use without risk of injury by sharp edges

Benefits for the retailer and producer

- Excellent product presentation and differentiation on the shelf
- No punctured lids
- No contamination of product on the shelf
- Higher sales figures
- · Less rejects

Benefits for the filling company

- Reliable processing on existing machinery
- Sealing at similar temperatures as with conventional lids is possible
- Easy metal detection

Benefits for the packaging converter

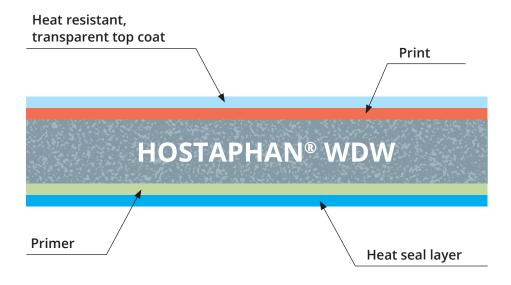
- No problems during heat seal coating, printing, embossing and die cutting
- Cost reduction as no white base lacquer is necessary
- Known printing on PET/ treated PET

HOSTAPHAN® WDW the Product

HOSTAPHAN® WDW is a white, biaxially oriented film made of polyethylene terephthalate (PET). The film exhibits a high dimensional and temperature stability and is perfectly suited for the application of a sealing layer and a multi-coloured print. More detailed information about properties of the film is published in our data sheet.



Typical lid structure



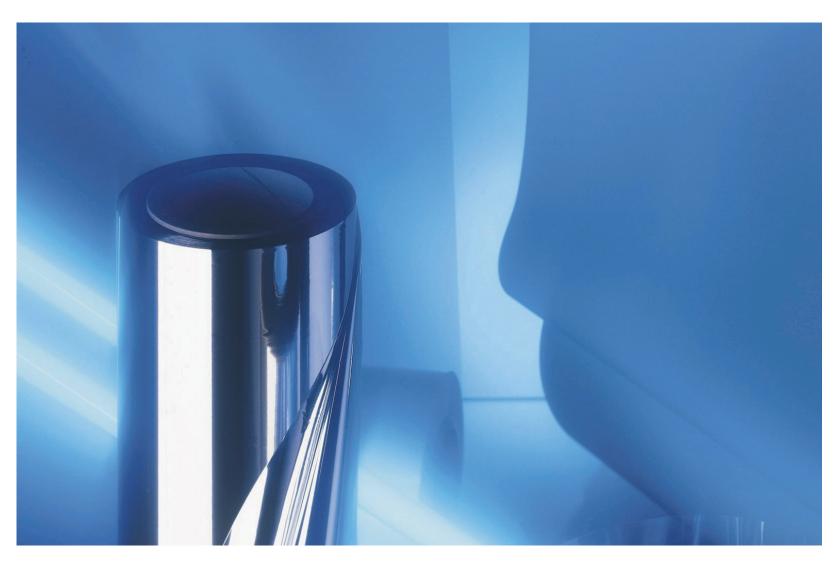
Types and thicknesses

Product Type	Description	Available thicknesses		
Films				
HOSTAPHAN® WDW	Standard type without coating	12, 23, 36, 50, 55, 65		
HOSTAPHAN® WDW CSRE	Standard type with 1-side coating for improved adhesion	12, 23, 36, 50, 55, 65		

Further information regarding suitable printing inks and sealing lacquers are available on request.



A fully integrated and independent supply chain – for the current and future needs of the industry



The data in this bulletin reflect our state of knowledge at the time this product bulletin 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 intellectual property rights, such as patents or trademarks. The quality of our products are covered by the terms of the General Conditions of Sale of MITSUBISHI POLYESTER FILM GmbH

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