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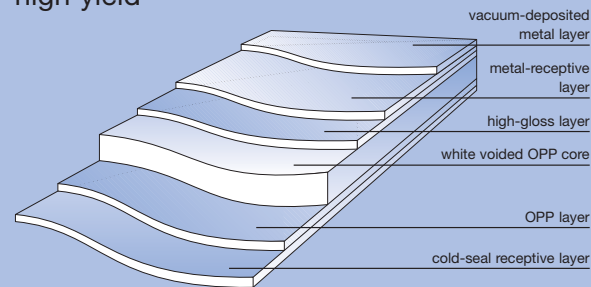
## VHM/S

- Metallized white voided co-extruded OPP film
- Excellent cold-seal adhesion



## TREOFAN PACKAGING FILM VHM/S

Metallized white voided OPP film with high yield



Treofan VHM/S is a biaxially oriented, co-extruded polypropylene film with exceptional yield. Its special external characteristic is the metallized outer face which improves barrier and decorative printing. The internal surface is white-coloured, a feature produced by the compact cellular structure. Treofan films are generally available in a one-side treated version.

## PRODUCT FEATURES

### Physical characteristics:

- high resistance to tear and puncture
- excellent resistance to low temperatures
- dimensionally stable under conditions of varying humidity

### Film characteristics:

- good metal adhesion
- improved barrier properties
- water-repellent
- resistance to biological oil and biological grease
- odourless and taste-free
- physiologically harmless, thus suitable for food packaging

### Optical characteristics:

- metallized exterior, high-gloss white interior
- white interior and exceptional gloss give impression of hygiene and cleanliness with a metallized film

### Special properties:

- exceptionally high yield and low specific gravity
- good print receptivity
- protection against light-induced fat oxidation due to the light barrier in the UV range

## APPLICATIONS AND PROCESSING

Treofan VHM/S can be used for packaging various types of filling products and products which need to be protected against moisture or dehydration. Also for packages subject to high mechanical stress such as deep-freeze packs. Using cold-seal coating, it is also suitable for packaging temperature-sensitive products, such as chocolate and ice cream.

### Printing:

- flexographic and rotogravure printing (half-tone and line)
- for Treofan VHM primers are required to obtain good ink adhesion and protection from damage to the aluminium layer
- for Treofan VHS a protective lacquer is required for the metallized face to prevent direct contact with the product

### Laminating:

- adhesive or extrusion lamination with OPP or with other substrates, depending on application

### Packaging:

- with proper cold-seal coating Treofan VHM/S is successfully used on a wide range of HFFS machines

### Storage:

- place Treofan VHM/S in the processing area approximately 24 hours prior to processing

### Certified according to

## DIN EN ISO 9001:2000

Compliance with industrial health and safety standards: Treofan OPP films do not present any significant danger to health and safety in the workplace, provided they are used for the intended purpose in accordance with conventional practices and that health and safety regulations are observed. Relevant guidelines can be found in our safety information.

## TECHNICAL DATA (typical values)

Properties	VHM/S 35	VHM/S 40	Unit	Measuring method
Unit weight	20.5	23.5	g/m <sup>2</sup>	ISO 4591
Yield	48.8	42.6	m <sup>2</sup> /kg	ISO 4591
Gloss treated side*	70	70	gloss units	DIN EN ISO 2813
Opacity*	78	82	%	DIN 53146
Whiteness according to Berger*	80	83	%	DIN 5033
Breaking load: machine direction	25	30	N/15 mm	DIN EN ISO 527-1/-3
transversal direction	60	75	N/15 mm	DIN EN ISO 527-1/-3
Elongation at break: machine direction	115	115	%	DIN EN ISO 527-1/-3
transversal direction	30	30	%	DIN EN ISO 527-1/-3
Water vapour permeability: 23°C/85% rh	0.6	0.6	g/m <sup>2</sup> *d	ASTM F 1249
38°C/90% rh	2.4	2.4	±10%	ASTM F 1249
Oxygen transmission rate: 23°C/50% rh	400		cm <sup>3</sup> /m <sup>2</sup> *d*bar ±10%	DIN 53380/3

\*non-metallized film

## AVAILABILITY (unprinted film)

Reel length (m):

Packaging Film	Standard length	Up to 6-times standard
VHM/S 35	1,800	10,800
VHM/S 40	1,600	9,600

8-times standard or other reel lengths available on request

Maximum reel outside diameter (mm):

Core diameter	Standard length	Up to 6-times standard
77 mm	approx. 310	-
152 mm	approx. 340	approx. 740

Max. reel width: 2,000 mm (widths > 2,000 mm on request)

The figures and the data provided in this data sheet are consistent with the current state of our knowledge, and are intended to provide general information on our products and their applications. They do not constitute a guarantee of any specific product attributes or the suitability of products for specific applications. Any existing commercial rights or patents must be observed.

Tests have shown that under the prescribed storage conditions the characteristics of Treofan VHM/S will maintain consistent performance and will be best before use throughout a 3-months period after delivery. Treofan VHM/S is largely unaffected by climatic influences, but should not be stored at temperatures above 30°C (86°F). The rolls should be kept in their original wrapping until used. After the rolls have been unwrapped, they should be stored safely in horizontal position.

### Food Safety

Treofan VHM/S has been developed specially for packaging foods and meets the specific requirements on health and safety. It meets the FDA and EC regulations, which includes the specific "German Food and Commodity Act" and the current recommendations of the BfR. Compliance with other specific national regulations is available on request. It is not recommended that the metallized surface is used in direct contact with food.

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