



HOSTAPHAN™

**Antimony-free PET Films for
Food and Cosmetics Packaging**



Mitsubishi Polyester Film GmbH

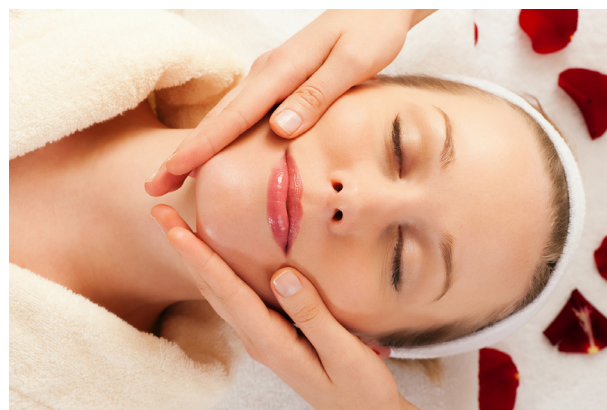
Antimony-free HOSTAPHAN™ Films for all packaging applications

As an innovative partner of our customers, we constantly improve our product spectrum. The global **KAITEKI** initiative of the Mitsubishi Chemical Group has the three-fold target of sustainability, health and comfort for the world. Our antimony-free (Sb-free) films, which we successfully achieved a few years ago, represent an important step toward **KAITEKI**.

For European packaging, food and cosmetics companies, our antimony-free HOSTAPHAN™ films offer the benefit of not having to deal with antimony migration.

Food Packaging PET is usually manufactured using an antimony catalyst, which stays in the plastic after its manufacture. In Europe, a very low limit has been set for the migration of antimony into food: 0.04 mg antimony / kg food. Because the limit is so low, the measurement is quite difficult. The total antimony content of conventional, antimony-based PET film is far above the migration limit. Official enforcement controls have found food in PET packages that exceeds the limit*. Thus migration testing for antimony is essential for conventional PET products, especially if the PET is heated with the food.

Unfortunately, food simulants that are supposed to be used for high temperature lab tests, e.g. vegetable oil, cannot dissolve antimony, while actual foods can. This means that the lab test with food simulants cannot detect antimony migration at high temperatures, even when antimony does migrate to real food under the same conditions. What ultimately counts for legal compliance is the amount of antimony in the food itself, not the amount in the lab test with the food simulant. This means that food packagers who use conventional, antimony-containing PET film in high temperature applications cannot rely on their suppliers' tests, but instead always need to check antimony migration in the actual food.



Cosmetic Packaging Antimony is categorically forbidden as a cosmetics ingredient. The new European Cosmetics Regulation requires that cosmetics firms test their products for traces of forbidden substances. This also applies to traces of forbidden substances that might originate from the packaging. If such traces are found in cosmetics, proof that they are technically unavoidable is required. The use of antimony-free HOSTAPHAN™ PET film not only avoids traces of antimony but also the need to test for them. Using our antimony-free HOSTAPHAN™ film types eliminates the need to do these difficult trace level measurements!

Moreover, because the HOSTAPHAN™ films for food packaging do not contain antimony, toxic emissions from energy recovery are prevented, thus helping to maintain a healthy environment.



* M. HALDIMANN, A. BLANC, & V. DUDLER, "Exposure to antimony from polyethylene terephthalate (PET) trays used in ready-to-eat meals", Food Additives and Contaminants, Vol. 24, pp860-868 (2007)

Your Advantages with Antimony-free HOSTAPHAN™ Films

- We offer a broad range antimony-free HOSTAPHAN™ films, for all packaging applications
- No need for migration testing in simulants or food
- No antimony can be transferred to food, since no antimony is present
- No health risk for consumers
- No testing needed for cosmetics
- A valuable contribution to the environment



ANTIMONY-FREE HOSTAPHAN™ FILM TYPES FOR PACKAGING

Product Type	Description	Thickness in µm
HOSTAPHAN™ RBB	Film for cooking and roasting bags	12
HOSTAPHAN™ GN 4600A	Glass clear film	50-250
HOSTAPHAN™ MPK/MK	Matte films	12, 19, 23, 50, 75, 125, 250
HOSTAPHAN™ SPK/STK	Super matte films	19, 23, 36, 50, 75
HOSTAPHAN™ RHS/RHST/RMST/WHs/WHST	Weldable films	12, 15, 18, 20, 25, 30, 75
HOSTAPHAN™ RPSE/RPSM/RPSB/RPSP	Peelable films	19, 25, 40
HOSTAPHAN™ WDW	White lidding film	12, 23, 36, 50, 55, 65
HOSTAPHAN™ RNK	Film for laminating	12, 15, 19, 23, 30, 36, 50, 75
HOSTAPHAN™ RNK 2CSR	Film for printing	12, 19, 23, 36, 50, 75
HOSTAPHAN™ RNK 2600	Film for metallisation	12, 19, 23, 36, 50, 75
HOSTAPHAN™ RD	Anti slip film	12, 23, 36
HOSTAPHAN™ WDO	Film for labels	112, 122, 125, 150, 175
HOSTAPHAN™ RN SIF10	Siliconised film for liners	23, 30, 36

For technical details please ask for our technical data sheets.

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

Our antimony-free HOSTAPHAN™ films are permitted for food contact according to the current version of EC Directive 1935/2004 and 10/2011 as well as FDA regulation 21 CFR 177.1630 under the conditions set out in our current Declaration of Compliance. Before using our antimony-free HOSTAPHAN™ films in a food contact article, please request this Declaration of Compliance.

This 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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