



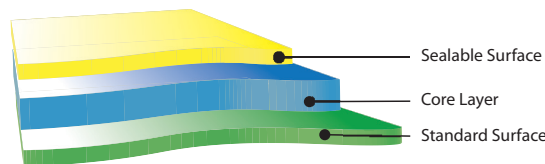
## Hostaphan® RHST

### Transparent, heat-sealable, temperature stable polyester film for cooking and roasting bags

Hostaphan® RHST is a biaxially oriented, coextruded film made of polyethylene terephthalate (PET) with one heat sealable surface. It seals to itself and to other types of polyesters, e.g. APET, A/CPET and unsaturated polyesters but not to polyolefins such as PE, PP and PS. The seal is not peelable. This antimony-free Hostaphan® RHST film is especially suited for usage in ovenable applications, offering the following advantages:

- 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
- Toxic emissions from energy recovery are prevented, a valuable contribution to the environment

### Layer structure of Hostaphan® RHST



### Typical properties

| Property                                  | Thickness<br>$\mu\text{m}$ | Units             | Value             |                   | Test Method                                 | Test Conditions                            |
|---|----------------------------|-------------------|-------------------|-------------------|---|--|
|   |                            |                   | MD                | TD                |   |  |
| <b>MECHANICAL</b>                         |                            |                   |                   |                   |   |  |
| Tensile strength                          | 15-20<br>30                | N/mm <sup>2</sup> | 270<br>230        | 250<br>230        | ISO 527-1 and<br>ISO 527-3<br>Sample type 2 | Test speed 100 %/min.;<br>23 °C, 50 % r.h. |
| Elongation at break                       | 15-20<br>30                | %                 | 125<br>135        | 125<br>130        | ISO 527-1 and<br>ISO 527-3<br>Sample type 2 | Test speed 100 %/min.;<br>23 °C, 50 % r.h. |
| Young's Modulus                           | 15-30                      | N/mm <sup>2</sup> | 4400              | 4600              | ISO 527-1 and<br>ISO 527-3<br>Sample type 2 | Test speed 1 %/min.;<br>23 °C, 50 % r.h.   |
| F5-value (stress to obtain 5% elongation) | 15-30                      | N/mm <sup>2</sup> | 105               | 95                | ISO 527-1 and<br>ISO 527-3<br>Sample type 2 | Test speed 100 %/min.;<br>23 °C, 50 % r.h. |
| <b>THERMAL</b>                            |                            |                   |                   |                   |   |  |
| Shrinkage                                 | 15<br>20<br>30             | %                 | 1.6<br>1.6<br>1.4 | 0.1<br>0.3<br>0.1 | DIN 40634                                   | 150°C, 15 min.                             |



| Property                            | Thickness<br>$\mu\text{m}$ | Units             | Value                        |    | Test Method                | Test Conditions                           |
|-------------------------------------|----------------------------|-------------------|------------------------------|----|----------------------------|---|
|                                     |                            |                   | MD                           | TD |                            |   |
| <b>OPTICAL</b>                      |                            |                   |                              |    |                            |   |
| Haze                                | 15-20<br>30                | %                 | 2<br>2.2                     |    | ASTM-D 1003-61<br>method A | Enlarged measurement<br>angle             |
| <b>SURFACE</b>                      |                            |                   |                              |    |                            |   |
| Coefficient of<br>friction (static) | 15-30                      | -                 | blocks<br><br>0.4<br><br>0.4 |    | DIN53375 or<br>ASTM-D 1894 | -   |
| Sealing side/seal-<br>ing side      |                            |                   |                              |    |                            |   |
| Sealing side/stand-<br>ard side     |                            |                   |                              |    |                            |   |
| Standard side/<br>standard side     |                            |                   |                              |    |                            |   |
| Surface tension<br>Standard side    | 15-30                      | mN/m<br>(dyne/cm) | 43                           |    | DIN 53364                  | Test inks                                 |
| <b>PHYSICAL/CHEMICAL</b>            |                            |                   |                              |    |                            |   |
| Density                             | 15-30                      | $\text{g/cm}^3$   | 1.39                         |    | ASTM-D 1505-68<br>method C | 23°C                                      |
| <b>HEAT SEAL-/PEEL PARAMETERS</b>   |                            |                   |                              |    |                            |   |
| Minimum sealing<br>temperature      | 15-30                      | °C                | 130                          |    | -                          | -   |
| Sealing strength                    | 15-30                      | N/15 mm           | 2-3                          |    | -                          | Finseal @130°C, 4 bar,<br>0.5 sec, T-peel |

MD = Machine direction, TD = Transverse direction

### Delivery program Hostaphan® RHST

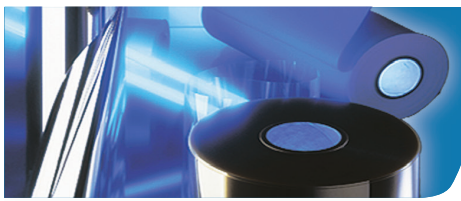
| Thickness<br>$\mu\text{m}$ | Yield          |                        | Roll length<br><i>m</i> | Roll-<br>diameter<br><i>mm</i> |
|----------------------------|----------------|------------------------|-------------------------|--------------------------------|
|                            | $\text{g/m}^2$ | $\text{m}^2/\text{kg}$ |                         |                                |
| 15                         | 21             | 48                     | 11 200                  | 490                            |
| 20                         | 28             | 36                     | 9 200                   | 540                            |
| 30                         | 42             | 24                     | On request              | On request                     |

Other roll lengths on request. Core diameter: 152.4 mm (6")

Hostaphan® RHST is generally suitable for use in microwave or conventional ovens under conditions up to 220° C for 120 minutes.

### Safety precautions

For microwave ovens, the heating instructions should be such that the food will not be dangerously overheated, especially for fatty or sugary "dry" foods. Such foods can reach very high temperatures in microwave ovens, possibly even above the melting point of the film.



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For conventional ovens, it is quite important that the temperature regulation in the oven is intact and working correctly. It is even more important that the film does not come into direct contact with glowing heating elements or open flames (e.g. a grill element or in standard household ovens in the United States). Otherwise, the film might melt if overheated (>250° C) or even start to burn (contact with heating element or flame).

Appropriate safety instructions should be passed on to consumers.

This Hostaphan® film is permitted for food contact according to the current version of EU Regulation 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 this Hostaphan® film in a food contact article, please request this Declaration of Compliance.

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.

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