

# Osstyrol<sup>®</sup> PS

HP-PM revision: 01/12

## Description

Sheets and foils made of high impact polystyrene (HIPS).

## Product information of uncoloured products

|                                       | Test method | Unit              | Value                                    |
|---------------------------------------|-------------|-------------------|--|
| <b>Mechanical properties</b>          |             |                   |  |
| Tensile stress at yield               | ISO 527     | MPa               | 20 - 26                                  |
| Strain at yield                       | ISO 527     | %                 | 1,4 - 1,8                                |
| Tensile stress at break               | ISO 527     | MPa               | 22 - 29                                  |
| Young's modulus                       | ISO 527     | MPa               | 1600 - 1800                              |
| Charpy-impact strength 23°C / -30°C   | ISO 179/1eU | kJ/m <sup>2</sup> |  |
| Charpy-impact strength (notched) 23°C | ISO 179/1eA | kJ/m <sup>2</sup> | 10 - 12                                  |
| Ball indentation hardness             | ISO 2039-1  | N/mm <sup>2</sup> | around 80                                |
| <b>Thermal properties</b>             |             |                   |  |
| Vicat-softening temperature VST/B/50  | ISO 306     | °C                | 87 - 92                                  |
| <b>Electrical properties</b>          |             |                   |  |
| Dielectric constant at 100Hz / 1MHz   | IEC 250     |                   | 2,5                                      |
| Volume resistivity                    | IEC 93      | Ohm cm            | > 10 <sup>16</sup>                       |
| Surface resistivity                   | IEC 93      | Ohm               | > 10 <sup>13</sup>                       |
| Dielectric strength                   | IEC 243/1   | kV/mm             | 65                                       |
| <b>Optical properties</b>             |             |                   |  |
| Surface gloss                         | DIN 67530   | %                 | on demand, depends on colour and surface |
| <b>Flammability</b>                   |             |                   |  |
| UL94 rating at 1.6 mm thickness       | UL 94       | class             | usual HB, if needed                      |
| UL94 rating at 3.2 mm thickness       | UL 94       | class             | please contact                           |
| <b>Other properties</b>               |             |                   |  |
| Density at 23 °C                      | ISO 1183    | g/cm <sup>3</sup> | 1,04                                     |
| Water absorption, method A            | ISO 62      | %                 | < 0,10                                   |
| Moisture absorption (Equilibrium)     | -           | %                 | < 0,10                                   |

## Particularities

Osstyrol PS is the most used standard product in the product-mix of Hagedorn-Plastirol. It is used in sheets or foils for thermoforming, printing or flat machining. Applications are displays, barrel sections, advertising articles, goods for household or leisure-time. Osstyrol PS is available in nearly every colour and many surfaces. It is possible to bring a protective film on the sheets. If you have higher requirements e.g. for the mechanical properties, please contact our sales agency.

## Note

The information submitted in this publication is based on our current knowledge and experience. Tested are uncoloured products. In view of many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of the suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed. In order to check the availability of products please contact us or our sales agency.