

## Technical Data Sheet PP-H (Homopolymer)

# PP-H natural

PP-H, PP homopolymer, PPH, polypropylene (homopolymer)

### Typical Properties

- High strength
- Good weldability
- Corrosion resistance

### Typical Industries

- Chemical plant engineering
- Cleanroom technology
- Drinking water and wastewater technology
- Electroplating plants
- Exhaust air purification plants
- Storage tanks
- Ventilation systems
- Aquafarming

|                                         | Test Method       | Unit                 | Value       |
|-----------------------------------------|-------------------|----------------------|-------------|
| <b>General Properties</b>               |                   |                      |             |
| Density                                 | DIN EN ISO 1183-1 | g / cm <sup>3</sup>  | >0.90       |
| Moisture absorption                     | DIN EN ISO 62     | %                    | <0.1        |
| Flammability (thickness 3 mm / 6 mm)    | UL 94             |                      | HB          |
| <b>Mechanical Properties</b>            |                   |                      |             |
| Yield stress                            | DIN EN ISO 527    | MPa                  | >30         |
| Elongation at break                     | DIN EN ISO 527    | %                    | >50         |
| Tensile modulus                         | DIN EN ISO 527    | MPa                  | >1500       |
| Notched impact strength                 | DIN EN ISO 179    | kJ / m <sup>2</sup>  | >4          |
| Shore hardness                          | DIN EN ISO 868    | scale D              | >70         |
| <b>Thermal Properties</b>               |                   |                      |             |
| Melting temperature                     | ISO 11357-3       | °C                   | 162 ... 167 |
| Thermal conductivity                    | DIN 52612-1       | W / (m * K)          | 0.20        |
| Specific heat capacity                  | DIN 52612         | kJ / (kg * K)        | 1.70        |
| Coefficient of linear thermal expansion | DIN 53752         | 10 <sup>-6</sup> / K | 120 ... 190 |
| Service temperature, long-term          | Average           | °C                   | 0 ... 100   |
| Service temperature, short-term (max.)  | Average           | °C                   | 150         |

|                                                    | Test Method             | Unit    | Value             |
|----------------------------------------------------|-------------------------|---------|-------------------|
| Vicat softening temperature                        | DIN EN ISO 306, Vicat B | °C      | 90                |
| <b>Electrical Properties</b>                       |                         |         |                   |
| Dielectric constant                                | IEC 60250               |         | 2.4               |
| Dielectric dissipation factor (10 <sup>6</sup> Hz) | IEC 60250               |         | 0.00019           |
| Volume resistivity                                 | DIN EN 62631-3-1        | Ω * cm  | >10 <sup>14</sup> |
| Surface resistivity                                | DIN EN 62631-3-2        | Ω       | >10 <sup>14</sup> |
| Dielectric strength                                | IEC 60243               | kV / mm | >40               |

The values stated are average values secured by continuous statistical testing. They comply with the requirements of DIN EN 15860. These data are purely descriptive of the material's characteristics and only constitute a contractual warranty by explicit agreement. They serve as an aid to material selection and are not a legally binding warranty of specific properties. As the properties also depend on the dimensions of the semi-finished stock and the degree of crystallinity, the actual property values of a specific product may deviate somewhat from the data.

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