**Product Information** | March 2016

# Polystyrol 148 H Q

## Product description

Polystyrol 148 H Q is a heat resistant, rapid freezing general purpose grade. It is suitable for expanded sheet and film for blends with high impact Polystyrol in heat contact applications, for transparent, resistant applications in blends with styrene-butadiene block copolymer resins (SBC).

## Processing

Polystyrol 148 H Q can be injection molded at temperatures between 180 and 280°C. Recommended mold temperatures are between 10 and 60°C. Extrusion melt temperature should not exceed 240°C.

## Applications

In blends with high impact polystyrene or SBC: thermoformed articles for packaging of dairy products, cups for hot beverages, e.g. coffee cups with low heat shrinkage. As material for physically or chemically foamed sheet, e.g. for meat trays or labels. Injection molded articles.

## Physical form and Storage

Polystyrol 148 H Q should be kept in its original containers in cool, dry place. Avoid direct exposure to sunlight. Polystyrol 148 K Q can be stored in silos.

## Product safety

During processing of Polystyrol 148 K Q small quantities of styrene monomer may be released into the atmosphere. At styrene vapour concentrations below 20 ppm no negative effects on health are expected. In our experience, the concentration of styrene does not exceed 1 ppm in well ventilated workplaces - that is where five to eight air changes per hour are made. Further information can be found in our Polystyrol safety data sheets.

## Note

The data contained in this publication are based on our knowledge and experience collected before the merchant of the last years took over the responsibility for the correctness of these data. We are currently rechecking all these data. However, we assume that they are still correct. If a correction will be needed we will revise this data sheet in due time. In any case and in view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of 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.

| Typical values at 23°C[1)] | Test method | Unit | Values |
|---|---|---|---|
| **Mechanical Properties** | | | |
| Tensile modulus | ISO 527-1/2 | MPa | **3399** |
| Stress at break | ISO 527-1/-2 | MPa | **51,86** |
| Strain at break | ISO 527-1/-2 | % | **2,83** |
| Flexural strength | ISO 178 | MPa | **100,69** |
| Shear modulus | ISO 6721-2 | MPa | **1350** |
| Charpy impact strength (23°C) | ISO 179/1eU | kJ/m² | **12,6** |
| Charpy notched impact strength (23°C) | ISO 179/1eA | kJ/m² | **2,08** |
| Ball indentation hardness at 358 N/30s | ISO 2039-1 | MPa | **161** |
| **Thermal properties** | | | |
| Vicat softening temperature VST /B/50 | ISO 306 | [°C] | **98,9** |
| Vicat softening temperature VST /A/120 | ISO 306 | [°C] | **105,6** |
| HDT A (1.80MPa) | ISO 75-1/-2 | °C | **82,8** |
| HDT B (0.45MPa) | ISO 75-1/-2 | °C | **94,9** |
| **Processing** | | | |
| Melt volume-flow rate MVR 200°C/5kg | ISO 1133 | [cm³/10min] | **6** |
| **Electrical properties** | | | |
| Relative permittivity (100Hz) | IEC 60250 | - | **-** |
| Relative permittivity (1 MHz) | IEC 60250 | - | **-** |
| Volume resistivity | IEC 60093 | Ohm*cm | **-** |
| Surface resistivity | IEC 60093 | Ohm | **-** |
| Electric strength K20/P50 | IEC 60243-1 | kV/mm | **-** |
| **Flammability** | | | |
| UL 94 (d=1.60 mm) | UL-94 | class | **HB** |
| UL 94 (d=3.18 mm) | UL-94 | class | **HB** |
| **Other properties** | | | |
| Density | ISO 1183 | kg/m³ | **1050** |
| Water absorption, equilibrium in water at 23°C | similar to ISO 62 | % | **<0,1** |
| Moisture absorption, equilibrium 23°C / 50% r.h. | similar to ISO 62 | % | **<0,1** |

Footnotes
1) If the product definition doesn't state otherwise.