# PS

Polystyrene

| DESIGNATION | CHEMICAL NAME | TYPE |
|---|---|---|
| PS | Polystyrene | Thermoplastic |

## General description

PS is a clear thermoplastic with particularly good thermoforming properties.

It has inherently poor impact strength but is supplied in coloured grades with good impact strength.

PS resembles ABS and is often called the "poor man's ABS".

## Processing

PS is available as semi-finished products in the form of sheets.

It has good machining properties, and the material can be welded, bonded and thermoformed.

## Applications

Vacuum-formed parts, inner liners in refrigerators and freezers, portable toilets, advertising signs, cups, food packaging and shower walls.

## Special features

Low price.

Environmentally friendly and easy to recycle.

Food contact approval for certain types/products.

## Properties

| PROPERTY | STANDARD | UNIT | VALUE |
|---|---|---|---|
| Density | DIN 53479 | g/cm$^3$ | 1.05 |
| Tensile strength | DIN 53455 | N/mm$^2$ | 36 |
| Impact strength at 23 °C | DIN 53453 | kJ/m$^2$ | 16 |
| Modulus of elasticity | DIN 53457 | N/mm$^2$ | 2800 |
| Elongation at break | DIN 53455 | % | 40 |
| Service temperature, continuous | - | °C | -20/+60 |
| Thermal expansion | ASTM D 896 | mm/m/°C | 0.08 |
| Flammability | UL 94 | | HB |

All information and guidelines are based on generally recognised technical handbooks and are given to the best of our knowledge and in good faith, without liability for any errors.

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