PE

Polyethylene

DESIGNATION	CHEMICAL NAME	TYPE
PE	Polyethylene	Thermoplastic

General description

Together with PP, the material belongs to the polyolefin group.

PE stands out for its extremely good impact strength, and PEHD (high density) is the most common type.

The material has very good chemical resistance.

Processing

PE is available as semi-finished products in the form of sheets, rods and tubes.

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

Very limited bondability.

Applications

Sheets, profiles and machined parts in industry, especially the food industry.

Slide plates.

Vacuum-formed covers, cases and transport boxes.

Pipe systems for transporting water and chemicals.

Ski bases.

Special features

High-molecular types (PEHD500 and PEHD1000) are also common in machined parts and profiles.

Low friction.

Good wear properties and very high impact strength.

Food contact approval for certain types/products.

Properties

PROPERTY	STANDARD	UNIT	VALUE
Density	DIN 53479	g/cm^3	**0.95**
Tensile strength	DIN 53455	N/mm^2	**32**
Impact strength at 23 °C	DIN 53453	kJ/m^2	**No break**
Modulus of elasticity	DIN 53457	N/mm^2	**700-800**
Elongation at break	DIN 53455	%	**>600**
Service temperature, continuous	-	°C	**-100/+70**
Thermal expansion	ASTM D 896	mm/m/°C	**0.2**
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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