

# Materials and use

## Material characteristics\*

Plastic types	Designation	Hardness
EVA	Ethylene vinyl acetate	very soft / elastic
PE-HD	Polyethylene, High Density	hard / elastic
PE-LD	Polyethylene, Low Density	soft/ elastic
PE-LLD	Polyethylene, Linear Low Density	soft/ elastic
PA 6	Polyamide 6	hard / tough
PA 6 GF 30	Polyamide 6 glass fibre reinforced	hard
PA 6.6	Polyamide 6.6	hard / tough
PA 6.6 GF 35	Polyamide 6.6 glass fibre reinforced	Very hard
MJF PA12	Multi Jet Fusion polyamide 12	Very hard
PCR-PE	Post-consumer recyclate, polyethylene	soft/ elastic
PCR-PE / PE-LD	Post-consumer recyclate, polyethylene batch	soft/ elastic
PCR-PE-HD	Post consumer recyclate, polyethylene, high density	hard / elastic
PCR-PP	Post consumer recyclate, polypropylene	hard / tough
PCR-TPE	Post-consumer recyclate, thermoplastic polyolefin elastomer	extremely soft / elastic
PET	Polyethylene terephthalate	hard / tough
PP	Polypropylene	hard / tough
PS	Polystyrene	hard / tough
SI	Silicone	extremely soft / elastic
PHT / TPC-ET	Thermoplastic polyester elastomer	soft/ elastic
TPE	Thermoplastic polyolefin elastomer	extremely soft / elastic

We manufacture KAPSTO® plastic protective elements primarily from polyethylene (PE-LD, PE-HD) and polypropylene (PP). These are hydrocarbon compounds. The material PE-LD may contain some PE-LLD. The material PE-LLD may contain proportions of PE-LD. The materials we use can consist of both virgin material and recycled material. They are recyclable, groundwater-neutral and suitable for thermal utilisation. For details, please refer to the product descriptions in this catalogue. Other materials are available for special stresses - whether mechanical, thermal or chemical. We will be happy to advise you.

## Chemical resistance\*

Plastic types	Weak acids	Weak alkali solutions	Alcohol	Solvent	Fuels	Mineral oils	Greases / Oils	Water, hot
EVA	●	●	■	●	●	●	■	■
PE-HD	■	■	■	●	●	■	■	■
PE-LD	■	■	■	●	●	●	■	■
PE-LLD	■	■	■	●	●	●	■	■
PA 6	●	■	■	■	■	■	■	●
PA 6 GF 30	●	■	■	■	■	■	■	●
PA 6.6	■	■	■	■	■	■	■	●
PA 6.6 GF 35	●	■	■	■	■	■	■	●
PCR-PE	■	■	■	●	●	●	■	■
PCR-PE / PE-LD	■	■	■	●	●	●	■	■
PCR-PE-HD	■	■	■	●	●	■	■	■
PCR-PP	■	■	■	●	●	■	■	■
PCR-TPE	■	■	■	●	●	●	●	■
PET	●	●	■	●	■	■	■	●
PP	■	■	■	●	●	■	■	■
PS	●	■	■	●	●	●	■	■
SI	●	●	■	●	●	●	●	●
PHT / TPC-ET	●	●	■	●	■	■	■	●
TPE	■	■	■	●	●	●	●	■

● resistant    ■ conditional resistant

## Special colours\*

Colour	Remark	Designation
sulphur yellow	Signal colour	RAL 1016
pure orange	Signal colour	RAL 2004
fire red	Signal colour	RAL 3000
blue lilac		RAL 4005
telemagenta		RAL 4010
recycling blue / traffic blue		RAL 5017
turquoise blue		RAL 5018
leaf green		RAL 6002
squirrel grey		RAL 7000
fawn brown		RAL 8007
jet black		RAL 9005
pure white		RAL 9010

KAPSTO® plastic protective elements are manufactured as standard in certain standard colours, which can be found in the respective product descriptions in this catalogue. Additional colours are available for custom-made products at an extra charge. We reserve the right to make technical colour deviations. These differences are unavoidable due to the colour pigments as well as the plastic raw materials. Colours not listed are available on request.

## Physical properties\*

Plastic types	Temperature resistance			Light transmittance			General tolerance	
	short-term	permanent	permanent	translucent	transparent	opaque	DIN 16901, DIN 16742, DIN ISO 20457	DIN ISO 3302-1, DIN 16742, DIN ISO 20457
EVA	+ 60 °C	+ 40 °C	- 40 °C		●	●	●	
PE-HD	+ 100 °C	+ 80 °C	- 40 °C	●	●	●	●	
PE-LD	+ 80 °C	+ 60 °C	- 40 °C	●		●	●	
PE-LLD	+ 90 °C	+ 70 °C	- 40 °C	●	●	●	●	
PA 6	+ 150 °C	+ 90 °C	- 20 °C			●	●	
PA 6 GF 30	+ 200 °C	+ 110 °C	- 20 °C			●	●	
PA 6.6	+ 170 °C	+ 90 °C	- 20 °C			●	●	
PA 6.6 GF 35	+ 220 °C	+ 110 °C	- 20 °C			●	●	
MJF PA12	+ 170 °C	+ 90 °C	- 20 °C			●	●	
PCR-PE	+ 80 °C	+ 60 °C	- 40 °C			●	●	
PCR-PE / PE-LD	+ 80 °C	+ 60 °C	- 40 °C			●	●	
PCR-PE-HD	+ 100 °C	+ 80 °C	- 40 °C	●	●	●	●	
PCR-PP	+ 130 °C	+ 100 °C	- 20 °C			●	●	
PCR-TPE	+ 120 °C	+ 100 °C	- 50 °C			●		●
PET	+ 60 °C	+ 40 °C	- 20 °C		●		●	
PP	+ 130 °C	+ 100 °C	- 20 °C			●	●	
PS	+ 80 °C	+ 50 °C	- 10 °C		●		●	
SI	+ 250 °C	+ 170 °C	- 50 °C		●			●
PHT / TPC-ET	+ 180 °C	+ 120 °C	- 40 °C			●	●	
TPE	+ 150 °C	+ 120 °C	- 50 °C			●		●

### \*Note

KAPSTO® plastic protective elements serve as protection against damage and contamination during transport, storage and the production process. The applications shown are examples of such applications.

The specific intended use of KAPSTO® protective elements is at the discretion of the customer. Due to the large number of possible influences on our products during processing, utilisation and application, we recommend that the suitability for the customer's intended use be determined by the customer's own tests and trials. We are happy to provide free samples for this purpose.

The product and material specifications contained in the catalogue are based on generally accessible information, e.g. from raw material suppliers. This information does not take into account the different effects on our product that may occur in actual use in the application intended by the customer. In particular, the information does not constitute a guarantee of quality or durability, warranted characteristics or quality agreements. This does not exempt the purchaser or user from carrying out their own tests and trials for a specific intended use. Occasional discolouration, streaks or dark spots are possible and cannot be avoided due to the manufacturing process. Subject to errors and changes without prior notice. Illustrations similar.

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