

Acrylonitrile-Butadiene-Styrene (ABS)

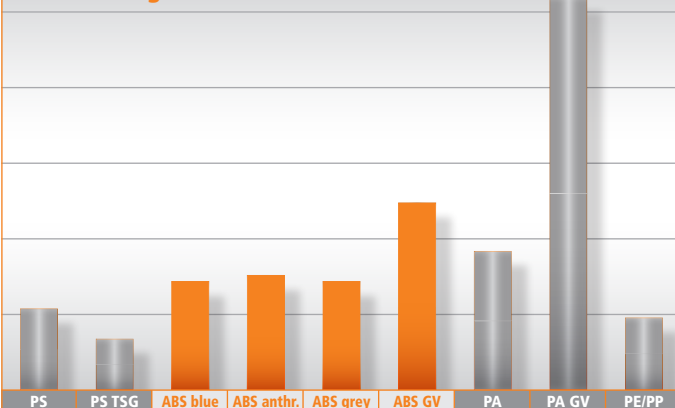
Material Data Sheet



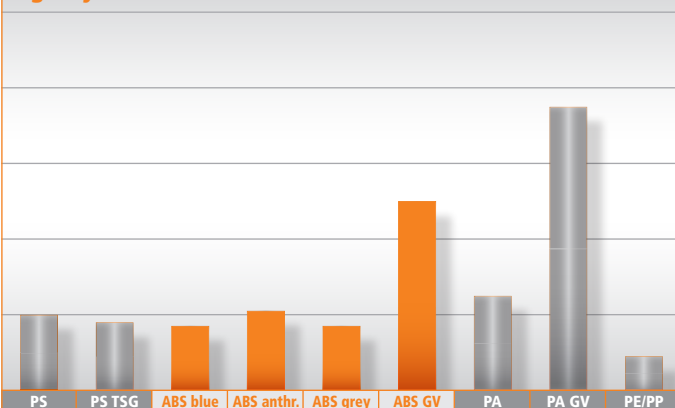
HÄFNER

Different characteristics in comparison:

Tensile strength

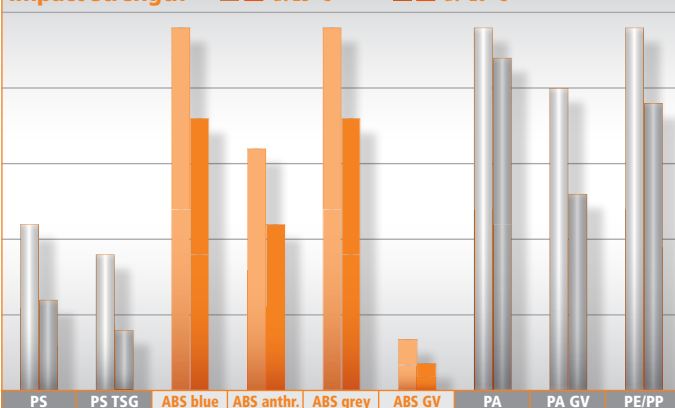


Rigidity



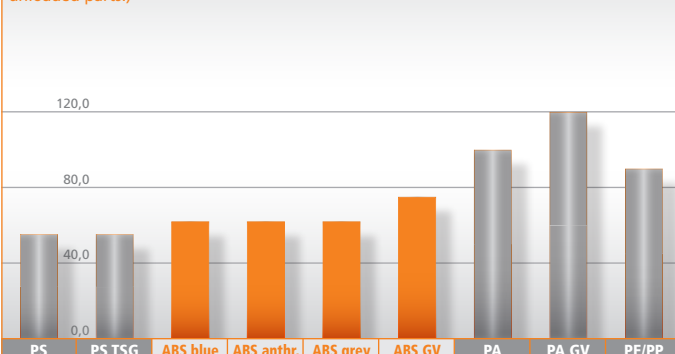
Impact strength

at 23 °C (light orange) at -20 °C (dark orange)



Shape stability in heat (°C)

(Reference values for maximum working temperatures with unloaded parts.)



▣ Abbreviation:

ABS = Acrylonitrile-Butadiene-Styrene

ABS GV = Glassfibre reinforced ABS

▣ Colours:

Basic colours: anthracite

Colour option: grey, blue

Other cover colours available on request.

Remark:

ABS grey, blue = impact strength better than ABS anthracite

ABS anthracite = less expensive than ABS grey

ABS GV = due to the glassfibre reinforcement harder and more rigid than ABS grey

▣ Physical characteristics:

Low absorption of water, moderate heat resistance, high dimensional accuracy.

Tends to electrostatic charge.

▣ Texture:

amorphous

▣ Density:

ABS = 1,04 - 1,08 g/cm³

ABS GV = 1,20 - 1,40 g/cm³

▣ Coefficient of thermal expansion:

ABS = $8 - 10 \cdot 1/K \cdot 10^{-5}$

ABS GV = $4 - 5 \cdot 1/K \cdot 10^{-5}$

▣ Absorption of water:

ca. 0,4 %

▣ Chemical resistance:

Limited resistance against oils and aromatic hydrocarbons (however far better than Polystyrene).

▣ Resistant:

e. g. against alkali, thinned mineral acids and most salts.

▣ Not resistant:

e. g. against concentrated acids, ether, benzene, acetone, ethylbenzene, ethylchloride, aniline

▣ Environmental stress cracking:

By simultaneous influence of specific chemicals and pressure, environmental stress cracking could take place. If in doubt, please contact us.

▣ Gluing:

Gluing with solvent based products is possible.