

Data sheet

Material Properties Plastics

ABS – Acrylonitrile–Butadiene–Styrene**Temperature–resistance:**

Permanently up to 70 °C, briefly up to 85 °C and to about minus 40 °C*.

Resistant to:

Formic acid, citric acid, lactic acid.

Conditionally resistant to:

Hydrochloric acid, sulphuric acid.

Not resistant to:

Acetone, petrol, benzene, solvents for paints and lacquers, butyric acid, chlorine, acetic acid, nitric acid.

PA – PolyAmide (Nylon)**Temperature–resistance:**

Permanently up to about 90 °C, briefly up to about 130 °C and to about minus 40 °C*.

Resistant to:

Petrol, benzene, diesel oil, acetone, solvents for paints and lacquers, oils and greases.

Low tendency to stress cracking.

Not resistant to:

Bleach, most acids, chlorine.

PA–GV – Polyamide, fibreglass reinforced**Temperature–resistance:**

Permanently up to about 100–110 °C, briefly up to 160 °C and to about minus 40 °C*.

Resistant to:

Petrol, benzene, diesel oil, acetone, solvents for paints and lacquers, oils and greases.

Low tendency to stress cracking.

Not resistant to:

Bleach, most acids, chlorine.

PE – PolyEthylene**Temperature–resistance:**

Hard types permanently up to about 90 °C, briefly up to about 105 °C
soft types permanently up to about 80 °C, briefly up to about 100 °C
and to about minus 40 °C*.

Resistant to:

Alkalis and inorganic acids.

Conditionally resistant to:

Acetone, organic acids, petrol, benzene, diesel oil, most oils.

Not resistant to:

Chlorine, hydrocarbons, oxidising acids.

POM – PolyOxyMethylene

(polyacetal, polyformaldehyde)

Temperature–resistance:

Permanently up to about 100 °C, briefly up to about 130 °C and to minus 40 °C*.

Resistant to:

Acetone, ether, petrol, weak acetic acid, benzene, heating oil, oils and greases, toluene.

Not resistant to:

Methylene chloride, trichloroethylene, hydrochloric acid, nitric acid, sulphuric acid.

PP – PolyPropylene**Temperature–resistance:**

Permanently about 90 °C, briefly up to about 110 °C and to about minus 30 °C*.

Resistance to chemicals generally as for polyethylene.

PS – PolyStyrene**Temperature–resistance:**

Because of its relatively high sensitivity to the effects of chemicals, its use is not recommended at temperatures above normal room temperature, about 25 °C.

Resistance to cold: to about minus 40 °C*.

Resistant to:

Alkalis, most acids, alcohol.

Conditionally resistant to:

Oils and greases.

Not resistant to:

Butyric acid, concentrated nitric acid, concentrated acetic acid, acetone, ether, petrol and benzene, solvents for paints and lacquers, chlorine, diesel fuel.

PVC (hard) – PolyVinylChloride (hard)**Temperature–resistance:**

Permanently up to about 65 °C, briefly up to about 75 °C and to about minus 30 °C*.

Resistant to:

Weak acids, alkalis, oils and greases, petrol.

Not resistant to:

Strong acids, benzene, acetone, iodine, toluene, trichloroethylene.

*The minus values apply only for parts in the quiescent condition with no severe impact stress.