

# Data sheet

## Material Properties Plastics

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

Permanently up to 316° F, briefly up to 365° F and to about minus 40° F\*.

**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 194° F, briefly up to about 266° F and to about minus 40° F\*.

**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 212–230° F, briefly up to 320° F and to about minus 40° F\*.

**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 194° F, briefly up to about 221° F soft types permanently up to about 176° F, briefly up to about 212° F and to about minus 40° F\*.

**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 212° F, briefly up to about 266° F and to minus 40° F\*.

**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 194° F, briefly up to about 230° F and to about minus 22° F\*.

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 77° F.

Resistance to cold: to about minus 40° F\*.

**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 149° F, briefly up to about 167° F and to about minus 22° F\*.

**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.