

PVC-C (cPVC)

Chlorinated polyvinyl chloride (PVC-C) with its superior density presents a greater range of thermal behaviour (up to approximately 80°C) than PVC-U.

PVC-C is a post-chlorinated PVC. PVC-C has a number of distinguishing features in comparison with PVC-U which lend significant added value to piping systems. The two most important and essential differences are:

- A higher temperature resistance of up to 80 °C;
- An excellent chemical resistance at high temperatures

These two important additional features are combined with the favourable properties that are ascribed to PVC-U:

- Corrosion resistance
- Easy installation
- Lightweight
- Durability
- Low maintenance

Areas of application

PVC-C combines the favourable features of PVC-U with two important additional properties. A high temperature resistance (of up to 80 °C) and an excellent resistance to different chemical products such as acids and alkaline solutions at high temperatures. Due to these features, the areas of application are wider than with PVC-U.

PVC-C is used in the following sectors (this is not an exhaustive list):

- Water treatment systems
- Industrial hot water systems
- Metal treatment systems
- Beverage and food industry
- Chemical process industry

Pressure/temperature diagram

PVC-C has very good properties in a temperature range of 0°C to 80°C. At lower temperatures the impact resistance clearly decreases.

DRUK-TEMPERATUURDIAGRAM PVC-C

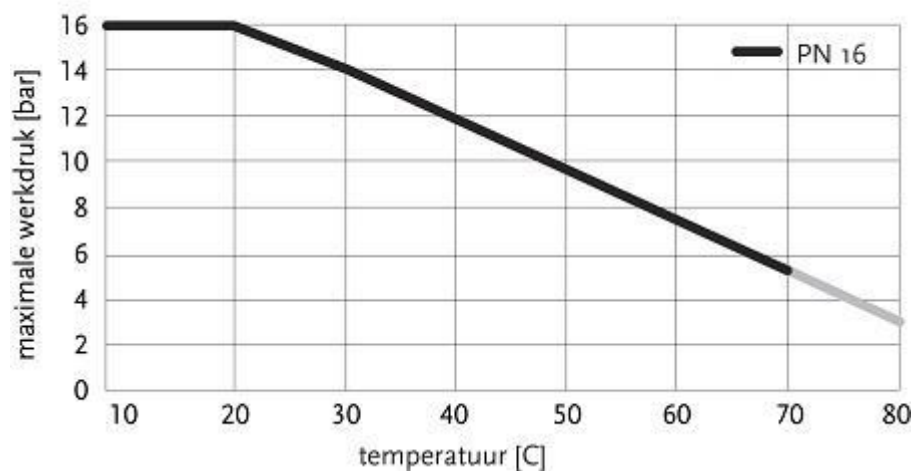


Figure 2

Figure 2 shows the maximum working pressure for PN 16 fittings in relation to a service life of 25 years. The values for PVC-C as from 70 °C apply to a service life of 10 years.

Chemical Resistance

The chemical resistance of PVC-C depends on the conditions of use and must be assessed for each situation.

For more information, please contact us.

Thermal expansion and shrinkage

PVC piping systems must be designed in such a way that no stresses occur as a result of thermal expansion and shrinkage. The thermal expansion coefficient of PVC-C is $7.1 \times 10^{-5} \text{ m / m}\cdot\text{K}$ (DIN 53752).

Colour

Light grey/blue