

General

Exposure temperature ranges are given in following sections.

Cold temperatures do not adversely affect HDPE in static applications.

Water within the pipe may freeze solid without damaging the pipe. However, ice blockages must be thawed before pumping is resumed. Care should be taken to limit the additional stresses imposed on a 'frozen' PE pipe since the pipe wall may already be in a state of stress if the contents were unable to expand longitudinally during the freezing process. Seasonal freeze/thaw conditions have little effect on this flexible, elastic piping system.

Pressure pipes

The upper limit temperature for pressure service is 60°C (140° F).

The low temperature limit is usually regarded as -90°C (130° F).

Structural and gravity pipe

The upper limit temperature for structural and gravity service is 70°C (160° F) for long-term exposure and up to 80°C (180°F) for short-term intermittent exposure..

The low temperature limit is usually regarded as -90°C (130° F).