

## GZ996 GIACOQUEST Pe-X pipes



### Pipe dimensions – according to ASTM F876

SIZE	3/8"	1/2"
Outside diameter(mm)	12.70	15.88
Tolerance for outside diameter	± 0.08	± 0.10
minimum wall-thickness(mm)	1.78	1.78
Tolerance on wall-thickness(mm)	+ 0.25	+ 0.25

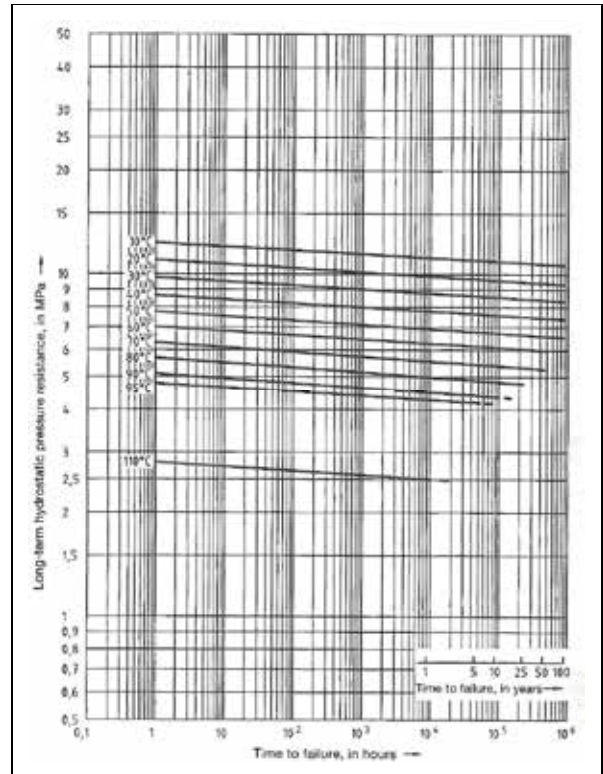
SIZE	3/4"	1"
Outside diameter(mm)	22.22	28.58
Tolerance for outside diameter	± 0.10	± 0.12
minimum wall-thickness(mm)	2.47	3.18
Tolerance on wall-thickness(mm)	+ 0.25	+ 0.33

### Long-term hydrostatic pressure resistance – according to DIN 16892

Long-term hydrostatic pressure resistance, is the strength of a pipe required to resist an induced internal hydrostatic pressure:

$$\sigma = p \cdot \frac{d-s}{2 \cdot s}$$

where  $p$  is the induced hydrostatic pressure;  
 $d$  is the outside diameter of the pipe;  
 $s$  is the nominal wall thickness of the pipe.



## Classification of service conditions – according to EN ISO 15875

The performance requirements for piping systems are specified for a design period of 50 years.

Typical field of application	$T_D$ (°C)	Time at $T_D$ (years)	$T_{max}$ (°C)	Time at $T_{max}$ (years)	$T_{mal}$ (°C)	Time at $T_{mal}$ (h)
Class 1 <sup>(1)</sup> Hot water supply (60°C)	60	49	80	1	95	100
Class 2 <sup>(1)</sup> Hot water supply (70°C)	70	49	80	1	95	100
Class 4 Underfloor heating and low temperature radiators	20 followed by 40 followed by 60	2,5  20  25	70	2,5	100	100
Class 5 High temperature radiators	20 followed by 60 followed by 80	14  25  10	90	1	100	100

<sup>(1)</sup> a country may select either class 1 or class 2 to confirm to its national regulations.

### Design temperature ( $T_D$ )

Temperature or combination of temperatures of conveyed water dependent on the service conditions for which the system has been designed.

### Maximum design temperature ( $T_{max}$ )

Highest design temperature  $T_D$ , occurring for short periods only.

### Malfunction temperature ( $T_{mal}$ )

Highest temperature that can be reached when the control limits are exceeded.

For any application the selection of the applicable class shall be agreed by the parties concerned. Each application class shall be combined with a design pressure, as applicable.

SIZE	Class 1	Class 2	Class 4	Class 5
3/8"	10	10	10	10
1/2"	8	8	10	8
3/4"	8	8	10	8
1"	8	8	10	8

- All systems which satisfy said condition shall also be suitable for the conveyance of cold water for a period of 50 years at a temperature of 20°C and a design pressure of 10 bar.
- All heating installations shall only use water or treated water as the transfer fluid (please contact us for guidance on the type of water treatment required and on aspects of application such as oxygen permeation).