



Adding more than value

SILON
Fibres • Compounds

Current situation in water disinfection

The world changed after 9/11, and has changed again after the Parisian terrorist attack, where 130 people were killed. A few days after the attack an undated video was published on Youtube by ISIS urging their supporters to poison water and food. Were the next steps a consequence? On November 21, Ms. Célia Blauel, President of Eau de Paris, confirmed that the chlorination of potable water has been raised and six public water sites guarded.

Protection of public health has become a real issue. What do PE-Xb pipes and safety have in common?

Mostly chlorine (Cl₂) was used for protection of water against biological contamination. But it is not effective against all the microorganisms.

Chlorine Dioxide (ClO₂) became a widely used disinfectant as it is effective against 99,9% of microorganisms in the water, which could possibly harm human health.

One example: **LEGIONELLA PNEUMOPHILA**



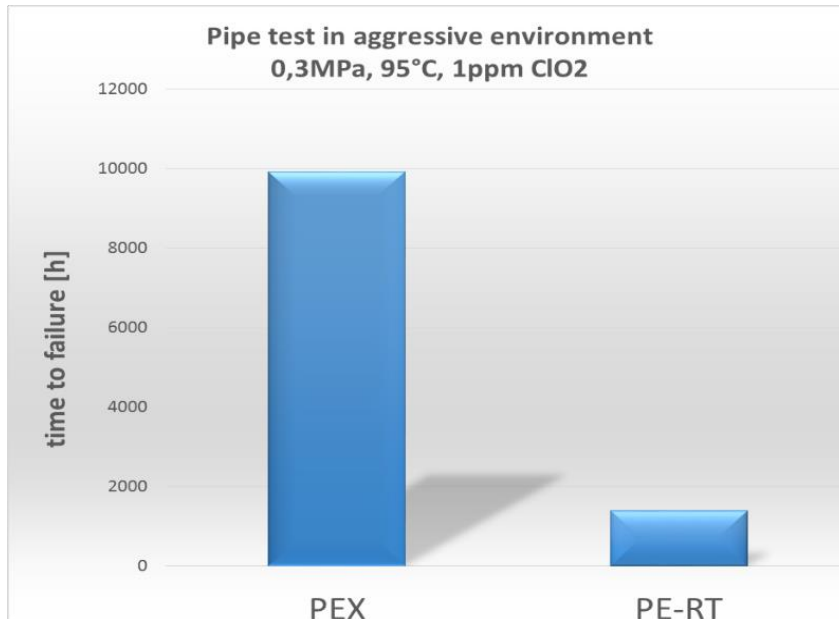
Legionnaire's disease is responsible for 15-20,000 deaths in Europe every year.

People at public places are the most vulnerable:



An increase in chemical water treatment is predicted in the future. Especially in the case of chlorine dioxide.

What kind of hot water pipes material can resist such a challenge in future?
PE-Xb pipes are ready for sudden or long term planned chlorination increase.



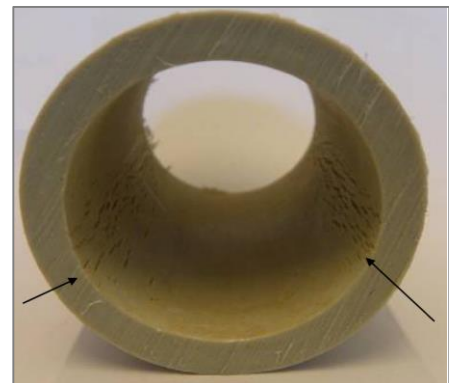
Source: Exova study

ClO₂ is 4 x more aggressive to water systems than Cl₂
= DANGER OF CHEMICAL CORROSION

Case of chemical corrosion:

Investigation of a PPR pipe exposed to 0.5 mg/l ClO₂ at 55°C for 8 years

- length of a pipe from hot water piping in a hospital with ClO₂ water purification system
- pipes had to be replaced due to leakage



Source: Corrosion of plastic pipes – the role of disinfectants
Karin Jacobson, PhD Swerea KIMAB AB, Stockholm, Sweden

Higher resistance to chemical corrosion
= increased lifetime of PE-Xb piping system

You can sleep better with PEX.

Your PEX pipes have a wide potential of resistance!