

# We know what your customer worries about

Corrosion

Lime

Water leaks

Heat losses

Energy inefficient

# We offer you the most suitable solution

## DHW Tanks manufactured in Duplex 2205 Stainless Steel

Duplex 2205 Stainless Steel has been developed to improve the technical weaknesses of stainless steels usually found on the market.

It does combine, the best properties of 2 families of stainless: Austenitic (40%) and Ferritic (60%)

**Duplex 2205 excels because of**

**its high resistance against corrosion**

# DHW Tanks manufactured in Duplex 2205 Stainless Steel

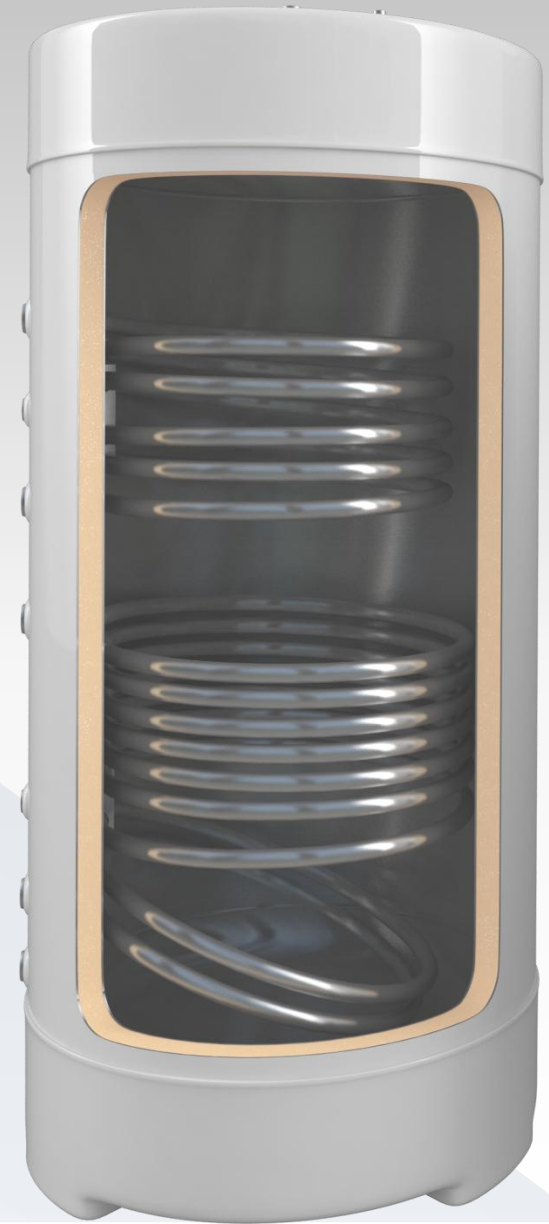
## Features and Benefits

### Dúplex 2205

- Resistance to stress corrosion cracking
- Resistance against corrosion
- Chloride resistance
- Mechanical strength
- Excellent weld-ability
- Does not need additional protection
- Resistance to abrasion

### AISI 316 & F18

- Resistance to stress corrosion cracking
- Resistance against corrosion



# Common uses for Duplex 2205

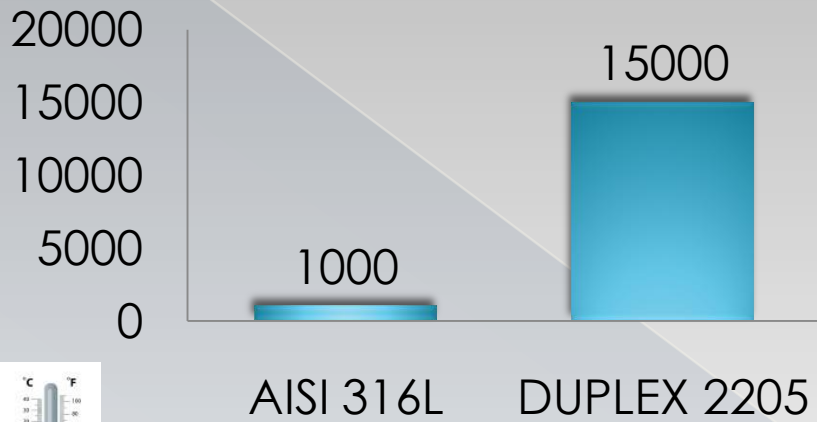
- ◉ Petrochemical industry
- ◉ Sea applications
- ◉ Desalination plants
- ◉ DHW production
- ◉ Heat exchangers
- ◉ Cargo tanks and piping systems in chemical tanks
- ◉ Food industry
- ◉ Chemical industry
- ◉ Piping systems on ships
- ◉ Cellulose industry
- ◉ Bridges

## About Corrosion by chlorides

- The most aggressive element for Stainless Steel
- Chlorides are salts present in all sources of water supply and drainage
- High chloride level in the water= corrosion in metal
- The element best known to cause this type of corrosion is CHLORINE.

**The most well-known chloride is the marine salt**

# Resistance to Chlorides and PREN values



**At T=20 °C**

**316L: 1.000 ppm (mg/l)**

**Duplex 2205: 15.000 ppm (mg/l)**

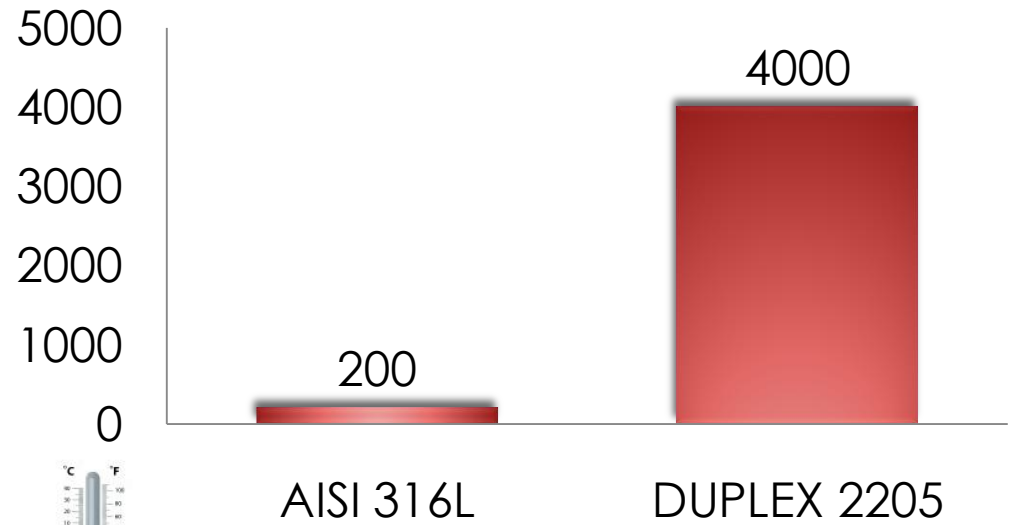


■ T 20°C

**At T=80 °C**

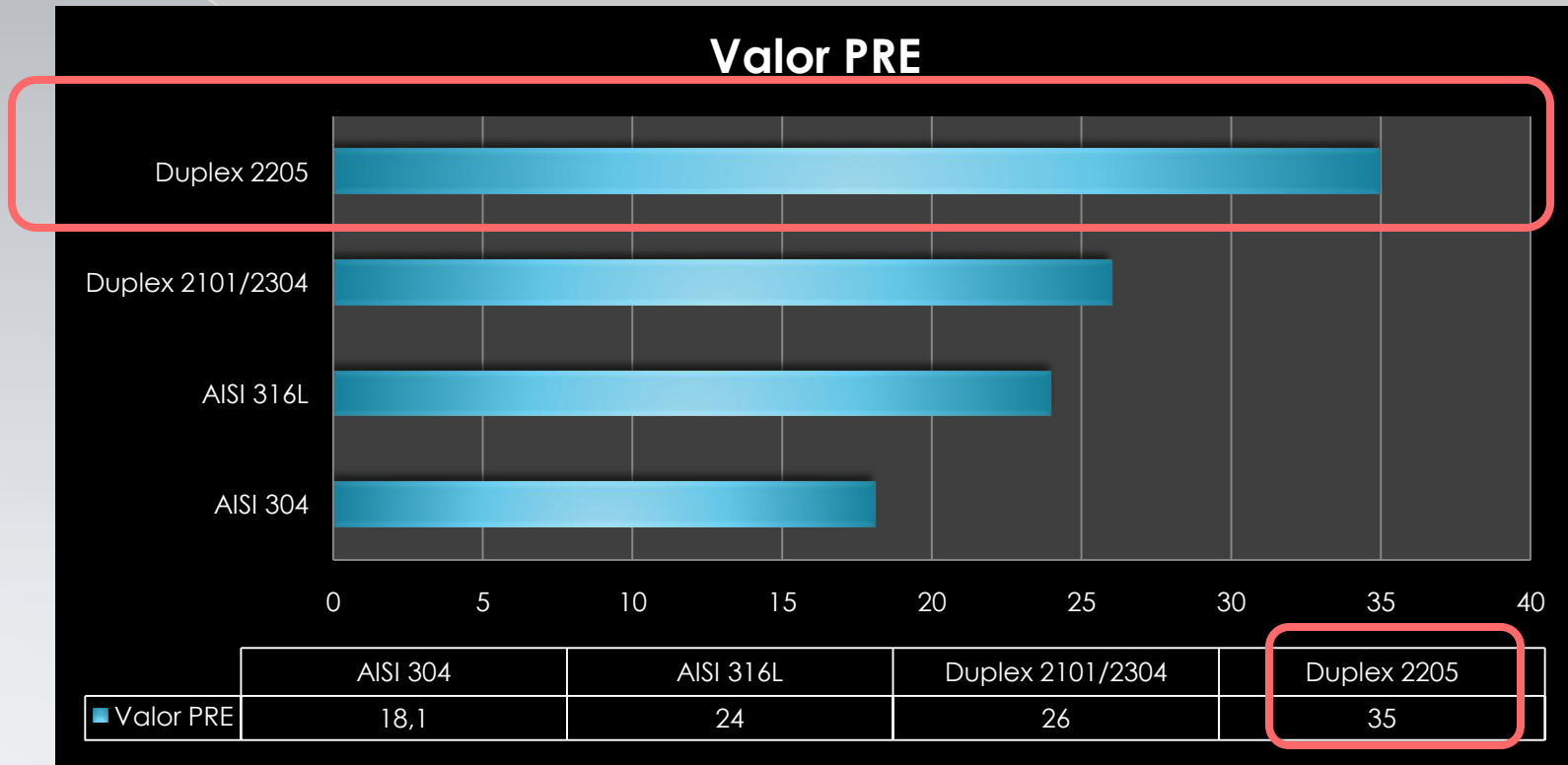
**316L: 200 ppm (mg/l)**

**Duplex 2205: 4.000 ppm (mg/l)**



■ T 80°C

# Resistance to Chlorides and PREN values



**PREN** = Is a measure of the relative pitting corrosion resistance of stainless steel in a chloride-containing environment.

**Higher PREN values indicate greater corrosion resistance**

AISI 304 = 18  
AISI 316L = 24  
DUPLEX 2101/2304 = 26  
**DUPLEX 2205 = 35**



- Water with acid PH level

- Water with high chlorine level

- Ground water

- Calcareous water

- Osmosis water



**10 years Warranty**

**Assured quality**