

LEAN DUPLEX STEEL

LDX 2202 - 1.4062



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LDX 2202 is a type of lean duplex stainless steel, designed to offer a balance of strength and corrosion resistance. It is engineered to deliver good performance in terms of mechanical strength and corrosion resistance, suitable for various applications where these properties are critical. Its composition ensures it is cost-effective by reducing the amount of nickel and molybdenum, which are more expensive alloying elements.

KEY FEATURES

- Excellent resistance to general corrosion
- High mechanical strength
- Excellent weldability and fabricability
- Good fatigue resistance
- Lower thermal expansion

CHEMICAL PROPERTIES

| Chromium (Cr) | Manganese (Mn) | Nickel (Ni) | Silicone (Si) | Molybdenum (Mo) | Copper (Cu) | Nitrogen (N) | Phosphorus (P) | Carbon (C) | Sulphur (S) | Iron (Fe) |
|-------------------|----------------|---------------|-----------------|-----------------|-----------------|------------------|----------------|--------------|--------------|-------------|
| 21.5-24.5% | 2-5% | 1-3.5% | 0.3-0.8% | 0.1-0.6% | 0.1-0.6% | 0.1-0.25% | 0.04% | 0.03% | 0.03% | rest |

MECHANICAL PROPERTIES

| | |
|---------------------------------------|----------------|
| Tensile strength (N/mm ²) | 620-850 |
| Yield strength (N/mm ²) | 450 |
| Elongation (% in 4D) | 25 |
| Hardness - Rockwell C (HRC) max | 28 |
| Hardness - Brinell (HB) max | 270 |

PHYSICAL PROPERTIES

| | | |
|---------------------------------------|-------------------|-------------|
| Density (kg/m ³) | 7700 | |
| Modulus of elasticity (Gpa) | 200 | |
| Mean coefficient of thermal expansion | 0-100°C (µm/m/°C) | 13.0 |
| | 0-350°C (µm/m/°C) | 13.6 |
| | 0-538°C (µm/m/°C) | 14.1 |
| Thermal conductivity | at 100°C (W/m.K) | 16.0 |
| | at 500°C (W/m.K) | 20.0 |
| Specific Heat 0-100°C (J/kg.K) | 500 | |
| Electrical resistivity (nΩ.m) | 800 | |
| Melting point (°C) | 1450 | |

MARKET SECTORS



Oil & Gas Industry

Offshore platforms, subsea equipment, process piping



Chemical Processing

Tanks, pressure vessels, heat exchangers, piping systems



Architectural Applications

Structural components, bridges, facades, reinforcements



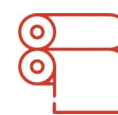
Desalination Components

Desalination plants, waste and wastewater facilities



Food & Beverage Industry

Processing equipment, storage tanks, piping



Pulp & Paper Industry

Digesters, bleaching equipment, tanks, piping