

# 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)
<b>21.5-24.5%</b>	<b>2-5%</b>	<b>1-3.5%</b>	<b>0.3-0.8%</b>	<b>0.1-0.6%</b>	<b>0.1-0.6%</b>	<b>0.1-0.25%</b>	<b>0.04%</b>	<b>0.03%</b>	<b>0.03%</b>	<b>rest</b>

#### MECHANICAL PROPERTIES

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

#### PHYSICAL PROPERTIES

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

#### 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



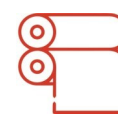
**Desalination Components**

Desalination plants, waste and wastewater facilities



**Food & Beverage Industry**

Processing equipment, storage tanks, piping



**Pulp & Paper Industry**

Digesters, bleaching equipment, tanks, piping