

# DUPLEX STEEL

## EDX 2304 - 1.4362



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EDX 2304 is valued for its combination of strength, corrosion resistance and cost efficiency, making it a versatile material suitable for a wide range of industrial applications where reliability and performance in harsh environments are required. It specifically offers improved strength and corrosion resistance over standard austenitic grades like 304 and 316 stainless steels, making it suitable for a variety of demanding applications.

#### KEY FEATURES

- Excellent resistance to general corrosion
- High mechanical strength
- Good weldability
- Fabrication properties
- Cost-effectiveness

#### CHEMICAL PROPERTIES

Chromium (Cr)	Nickel (Ni)	Manganese (Mn)	Silicone (Si)	Molybdenum (Mo)	Nitrogen (N)	Phosphorus (P)	Carbon (C)	Sulphur (S)	Iron (Fe)
<b>22-24%</b>	<b>3.5-5.5%</b>	<b>0.5-2%</b>	<b>1%</b>	<b>0.05-0.6%</b>	<b>0.05-0.2%</b>	<b>0.04%</b>	<b>0.03%</b>	<b>0.02%</b>	<b>rest</b>

#### MECHANICAL PROPERTIES

Tensile strength (N/mm <sup>2</sup> )	<b>600-800</b>
Yield strength (N/mm <sup>2</sup> )	<b>400-550</b>
Elongation (% in 4D)	<b>25</b>
Hardness - Rockwell C (HRC) max	<b>28-32</b>
Hardness - Brinell (HB) max	<b>270</b>

#### PHYSICAL PROPERTIES

Density (kg/m <sup>3</sup> )	<b>7800</b>	
Modulus of elasticity (Gpa)	<b>200</b>	
Mean coefficient of thermal expansion	0-100°C (µm/m/°C)	<b>11.5</b>
	0-350°C (µm/m/°C)	<b>12.6</b>
	0-538°C (µm/m/°C)	<b>13.7</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>475</b>	
Electrical resistivity (nΩ.m)	<b>850</b>	
Melting point (°C)	<b>1450</b>	

#### MARKET SECTORS



##### Architectural Applications

Structural components, bridges, facades, reinforcement bars



##### Chemical Processing

Storage tanks, pressure vessels, piping systems, heat exchangers



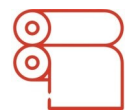
##### Oil & Gas Industry

Offshore platforms, subsea equipment, process piping



##### Marine Equipment

Shipbuilding, marine equipment, seawater applications



##### Pulp & Paper Industry

Digesters, bleaching equipment, storage tanks, piping systems



##### Automotive Industry

Exhaust systems, structural components, automotive frames