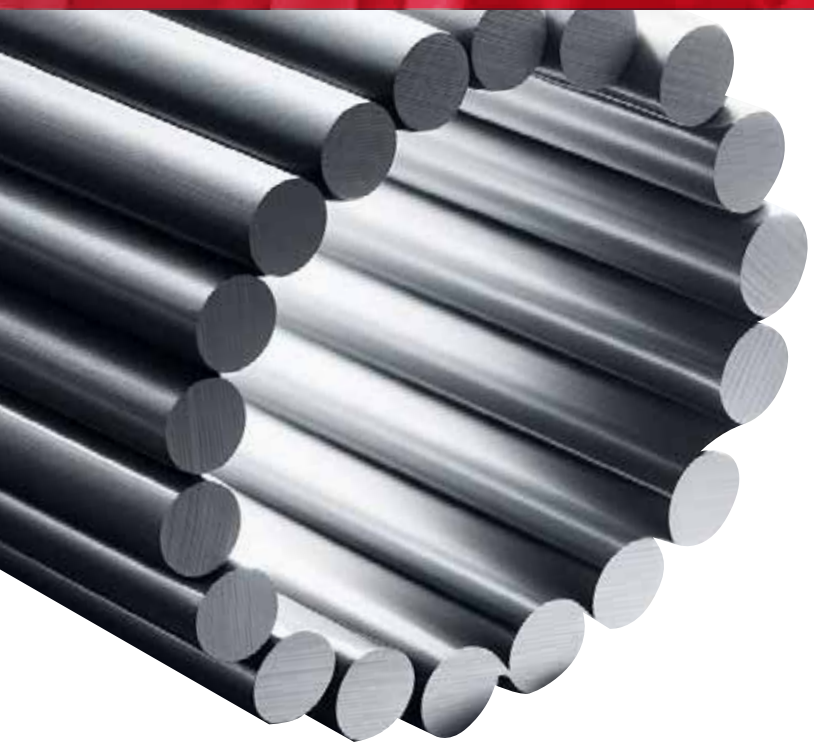
DUPLEX STEEL

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)
22-24%	**3.5-5.5%**	**0.5-2%**	**1%**	**0.05-0.6%**	**0.05-0.2%**	**0.04%**	**0.03%**	**0.02%**	**rest**

MECHANICAL PROPERTIES

Tensile strength (N/mm²)	**600-800**
Yield strength (N/mm²)	**400-550**
Elongation (% in 4D)	**25**
Hardness - Rockwell C (HRC) max	**28-32**
Hardness - Brinell (HB) max	**270**

PHYSICAL PROPERTIES

Density (kg/m³)		**7800**
Modulus of elasticity (Gpa)		**200**
Mean coefficient of thermal expansion	0-100ºC (µm/m/ºC)	**11.5**
	0-350ºC (µm/m/ºC)	**12.6**
	0-538ºC (µm/m/ºC)	**13.7**
Thermal conductivity	at 100ºC (W/m.K)	**16.0**
	at 500ºC (W/m.K)	**20.0**
Specific Heat 0-100ºC (J/kg.K)		**475**
Electrical resistivity (nΩ.m)		**850**
Melting point (ºC)		**1450**

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

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