

# SUPER DUPLEX STEEL

## UNS 32750 - 1.4410



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UNS 32750, also known as 1.4410, is a Super Duplex Stainless Steel with a combination of excellent mechanical properties and corrosion resistance. UNS S32750 is a highly desirable material for applications requiring superior corrosion resistance, strength and toughness in aggressive environments, making it a preferred choice in critical industries worldwide.

### KEY FEATURES

- Excellent corrosion resistance
- High tensile and yield strength
- Good ductility and toughness
- High temperature resistance
- Pitting and crevice resistance

### CHEMICAL PROPERTIES

Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)	Manganese (Mn)	Silicone (Si)	Copper (Cu)	Nitrogen (N)	Phosphorus (P)	Carbon (C)	Sulphur (S)
24.5-26%	6-8%	3-5%	0.5-1%	0.8%	0.5-1%	0.5%	0.035%	0.03%	0.02%

### MECHANICAL PROPERTIES

Tensile strength (N/mm <sup>2</sup> )	<b>800</b>
Yield strength (N/mm <sup>2</sup> )	<b>550</b>
Elongation (% in 4D)	<b>25</b>
Hardness - Rockwell (HRB) max	<b>105</b>
Hardness - Brinell (HB) max	<b>270</b>

### PHYSICAL PROPERTIES

Density (kg/m <sup>3</sup> )	<b>7810</b>	
Modulus of elasticity (Gpa)	<b>210</b>	
Mean coefficient of thermal expansion	0-100°C (µm/m/°C)	<b>13.0</b>
	0-350°C (µm/m/°C)	<b>14.1</b>
	0-538°C (µm/m/°C)	<b>15.3</b>
Thermal conductivity	at 100°C (W/m.K)	<b>14.2</b>
	at 500°C (W/m.K)	<b>19.6</b>
Specific Heat 0-100°C (J/kg.K)	<b>457</b>	
Electrical resistivity (nΩ.m)	<b>800</b>	
Melting point (°C)	<b>1350</b>	

### MARKET SECTORS



**Oil & Gas Industry**

Pumps, valves, oil platforms, subsea pipelines



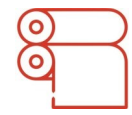
**Chemical Processing**

Reactors, heat exchangers, vessels



**Desalination Components**

Seawater intake systems, brine heaters, evaporators



**Pulp & Paper Industry**

Digester vessels, bleach towers, equipment



**Power Generation**

Heat exchangers, boilers, condensers



**Food & Beverage Industry**

Food handling machinery, storage tanks, equipment