SUPER DUPLEX STEEL

UNS 32760 - 1.4501



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1.4501 is a specific grade of super duplex stainless steel with the common designation for this steel grade of UNS S32760, and it is also referred to as Alloy 2507. The 1.4501 (UNS S32760) super duplex stainless steel belongs to the family of duplex stainless steels, but it is specifically classified as a "super" duplex due to its higher alloy content and enhanced properties.

KEY FEATURES

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

CHEMICAL PROPERTIES

| Chromium | Nickel | Molybdenum | Manganese | Silicone | Tungsten | Copper | Nitrogen | Phosphorus | Carbon | Sulphur |
|----------|--------|------------|-----------|----------|----------|--------|----------|------------|--------|---------|
| (Cr) | (Ni) | (Mo) | (Mn) | (Si) | (W) | (Cu) | (N) | (P) | (C) | (S) |
| 24.5-26% | 6-8% | 3-4% | 1% | 1% | 1% | 0.5-1% | 0.25% | 0.03% | 0.03% | 0.01% |

MECHANICAL PROPERTIES

| Tensile strength (N/mm ²) | 750 |
|---------------------------------------|-----|
| Yield strength (N/mm ²) | 550 |
| Elongation (% in 4D) | 25 |
| Hardness - Rockwell (HRB) max | 105 |
| Hardness - Brinell (HB) max | 270 |

PHYSICAL PROPERTIES

| Density (kg/m ³) | 7800 | |
|------------------------------|-------------------|------|
| Modulus of elasticity (Gp | 200 | |
| M 65 - 1 - 6 | 0-100°C (µm/m/°C) | 17.2 |
| Mean coefficient of | 0-350°C (µm/m/°C) | 17.8 |
| thermal expansion | 0-538°C (µm/m/°C) | 18.4 |
| Thermal | at 100°C (W/m.K) | 14.2 |
| conductivity | at 500°C (W/m.K) | 19.6 |
| Specific Heat 0-100°C (J | 500 | |
| Electrical resistivity (nΩ. | 800 | |
| Melting point (°C) | 1450 | |

P&P NON-FERROUS

SINCE 1983

MARKET SECTORS







Pumps, valves, pipes, vessels, wellhead equipment



Propellers, shafts, pumps, bolts, fasteners, valves



Caustic evaporators, tankers, heat exchangers



Desalination Components

Sewage treatment, pumps, valves, piping systems



Digester vessels, bleach towers, equipment

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