Super Duplex 2507

Super Duplex 2507 stainless steel alloy provides improvements in strength and corrosion resistance over Duplex 2205. Known for their high yield strength, Super Duplex Stud bolts offers twice that of annealed austenitic stainless steels, like 304 and 316. Super Duplex provides excellent resistance to localized attack from chloride environments. Grade 2507 fasteners also provide corrosion protection from organic acids such as formic and acetic acid. They are used for mechanical assemblies and infrastructure for strength and seawater resistance, as well as water systems and desalinization plants that require protection from saltwater.

Properties

Ultimate Tensile Strength	125 ksi
Yield Strength at 0.2%	82 ksi
Elongation %	40
Usable Temperature Limit	570˚F / 300˚C

Key Benefits

- Excellent localized resistance to pitting, erosion and crevice corrosion, as well as corrosion fatigue
- Excellent localized resistance to chloride
- Very high mechanical strength
- High thermal conductivity
- Low coefficient of thermal expansion

Chemistry & Specifications

Super Duplex 2507	Fe	Cr	Ni	Mo	Mn	Si	P	C	S
Typical	-	25.0	7	4	≤1.2	≤0.8	≤0.015	≤0.030	≤0.015

Metric Threads (M):
ISO 261: General tolerance for screw threads.
ISO 262: General tolerance for screw threads (metric, pitch, and diameter)
Unified Thread Standard (UNC/UNF):ANSI/ASME B1.1: Unified Inch Screw Threads.ANSI B1.2: American National Thread Form

Material Data

SUPER DUPLEX 2507 - Tensile Data

Temperature (°F)	Ultimate Tensile (ksi)	Yield Strength at 0.2% Offset	Elongation %
Room Temp.	116	80	15
212	101	65	-
302	98	61	-
392	95	58	-
482	94	55	-