TECHNICAL DATA
Duplex Steel 2205

Duplex steel 2205 fasteners are made from a stainless steel alloy which provides better strength and corrosion resistance than 300 series stainless. Grade 2205 is known for offering good localized corrosion resistance to chlorides and saltwater including stress corrosion cracking, as well as pitting and crevice corrosion. Duplex 2205 bolts are often used in marine environments, brackish water, bleaching operations, closed loop water systems and some food processing applications.

Properties

Ultimate Tensile Strength	110 ksi
Yield Strength at 0.2%	80 ksi
Elongation %	25
Usable Temperature Limit	570˚F / 300˚C

Key Benefits

- Good general corrosion resistance
- High resistance to localized chloride corrosion
- Good sulfide stress corrosion resistance
- High strength and good fatigue resistance
- High energy absorption
- Low thermal expansion

Chemistry & Specifications

Duplex 2205	Fe	Cr	Ni	Mo	Mn	Si	N	P	C	S
Min %	-	22.0	4.5	3.0	-	-	-	-	-	-
Max %	Bal	23.0	6.5	3.5	2.0	1.0	0.2	0.030	0.03	0.02

SPECIFICATIONS: ASME SA 182, ASME SA 240, ASME SA 479, ASME SA 789, ASME SA 789 Section IV Code Case 2603, ASTM A 240, ASTM A 276 Condition A, ASTM A 276 Condition S, ASTM A 479, ASTM A 790, NACE MR0175/ISO 15156, NORSOK MDS D45 Grade F51, UNS S31803, UNS S32205, W. NR./EN 1.4462, Werkstoff 1.4462 Duplex

Material Data

DUPLEX 2205 - Tensile Data

Temperature (°F)	Ultimate Tensile (ksi)	Yield Strength at 0.2% Offset	Elongation %
Room Temp.	113-131	70-97	25
400	93-106	51-75	-
600	94	56	-
700	93	54	-