

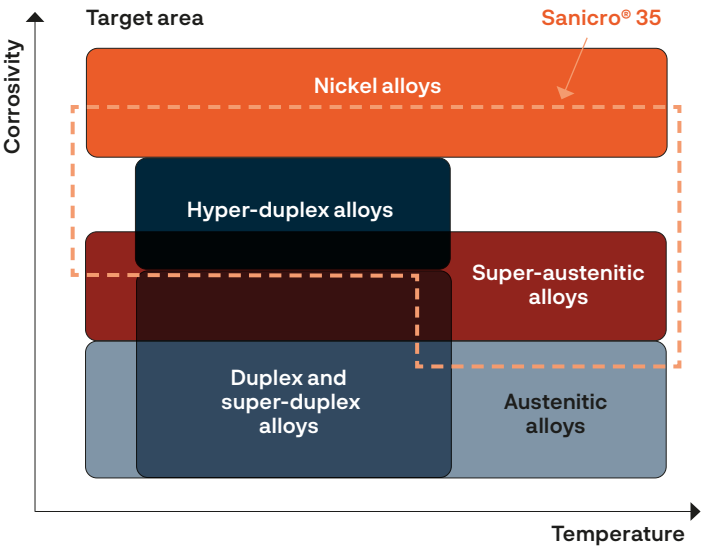


 Alleima

Sanicro[®] 35-HS
bar for fasteners

Which materials will you replace with Sanicro® 35-HS?

Fasteners made from Sanicro® 35-HS bar challenges the use of more costly nickel alloys and can upgrade duplex and super austenitic materials. In addition to high strength, it also offers superior hydrogen embrittlement and corrosion properties.



Sanicro® 35-HS – main characteristics

- Excellent resistance to**
- Hydrogen embrittlement
 - Pitting corrosion PRE(N) ≥52
 - Crevice corrosion in chloride environments
 - Chloride-induced stress corrosion cracking
 - Seawater corrosion 30 °C / 86 °F

- Extremely high**
- Impact strength >200J / >150 t.lb at -60 °C / -76 °F

- Very high**
- Yield strength min 120Ksi
 - Ductility

- Substantially lower**
- Carbon footprint compared to nickel alloys

Chemical composition (nominal) %

UNS N08935

C	Si	Mn	P	S	Cr	Ni	Mo	Cu	N	Fe
≤0.030	≤0.4	0.8	≤0.030	≤0.020	27	35	6.5	0.2	0.3	Remainder

Sanicro® 35-HS for fasteners

Standards and approvals

Product standards

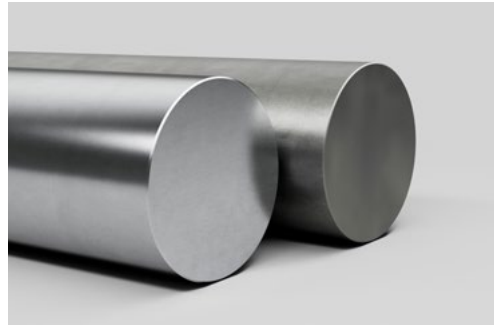
- ASTM B649 / ASME SB649
- UNS N08935
- NORSOK M630, MDS R47
- ISO14067 (CO2e)

Compliant with

- ANSI/NACE MR0175/ISO 15156-3
Type 4a and 4c materials*
- ANSI/NACE MR0103/ISO 17495-1

Approvals

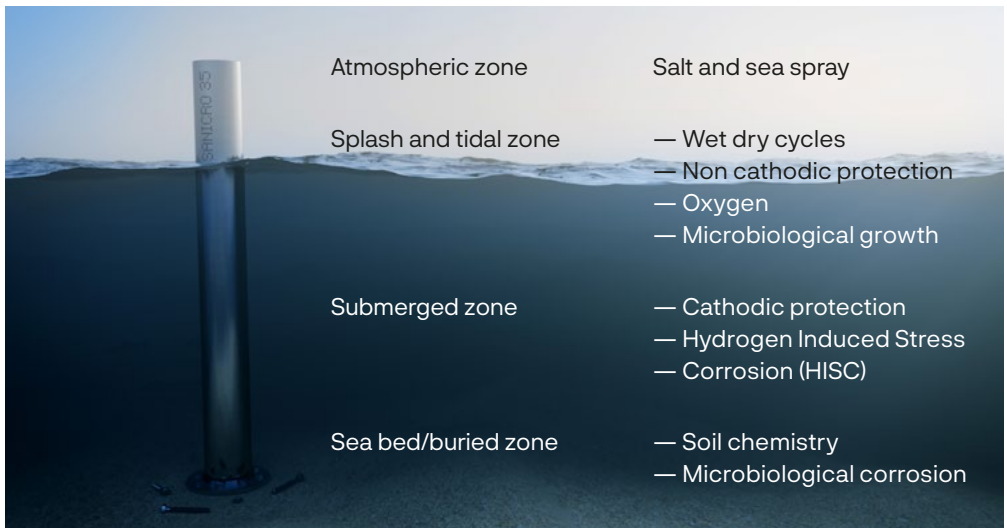
- ASME Boiler and Pressure Vessel Code (BPVC) Section VIII, Div. I and II
- ASME Code Case 2982-1
- Pre-approval for PMA (PED 2014/68/EU D_s 240mm / 9.45")



*Sanicro® 35-HS conditions:
Yield strength (Rp0.2) max. 150Ksi.
Hardness max. 40 HRC

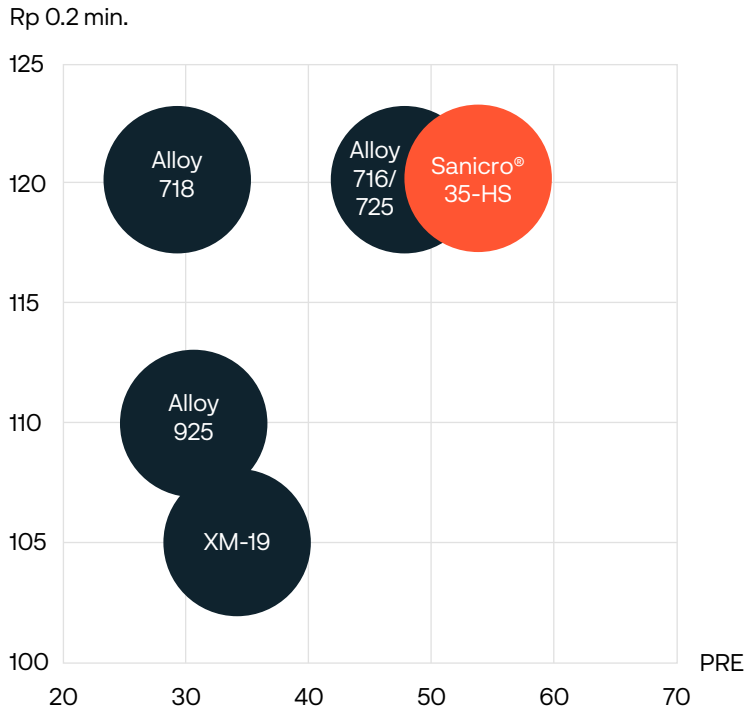
Sanicro® 35-HS

Superior performance in all seawater environments



Sanicro® 35-HS bar

Mechanical strength and pitting resistance



- The yield strength of minimum 120 Ksi and excellent crevice corrosion resistance, makes the cold drawn Sanicro® 35-HS bar especially suitable for production of small size bars, fasteners, screws, nuts and bolts.
- Sanicro® 35-HS has excellent resistance (virtually immune) to Hydrogen Induced Stress Corrosion (HISC)
- Precipitation hardened grades like Alloy 718, Alloy 716/725, and Alloy 925 are known to suffer from HISC.
- This makes Sanicro® 35-HS a natural choice, fulfilling and surpass Alloy 718 requirements in seawater and other wet corrosion environments.

Sanicro® 35-HS in fastener applications gives:

- Secure performance in all seawater environments.
- Cost efficiency compared to alloys like 718, C276 and A59.
- Immune to hydrogen embrittlement under cathodic protection.
- High elongation at fracture, increases safety in operation.
- Exceptional impact strength toughness even at -101 °C / -142 °F.
- Superior general and localized corrosion resistance compared to precipitation hardened grades, PRE(N) >52.
- Lower carbon footprint, minimum 30% compared to high nickel alloys.

[Learn more](#)



About Alleima

Alleima, is a global manufacturer of high value-added products in advanced stainless steels and special alloys as well as solutions for industrial heating. Based on long-term customer partnerships and leading materials technology, we develop products for the most demanding applications and industries. Our offering includes products like seamless steel tubes for the energy, chemical and aerospace industries, precision strip steel for white goods compressors, air conditioners and knife applications, based on more than 900 active alloy recipes. It also includes ultra-fine wires for medical and micro-electronic devices, industrial electric heating technology and coated strip steel for fuel cell technology for cars, trucks, and hydrogen production. Our fully integrated value chain, from R&D to end-product, ensures industry-leading technology, quality, sustainability, and circularity. Alleima, with headquarter in Sandviken, Sweden, had approximately 6,800 employees and revenues of about 19 billion SEK in about 80 countries in 2025. Alleima is listed on Nasdaq Stockholm under the ticker 'ALLEI'.

Find out more at
alleima.com