

AX-316L AX-4430

Standard

EN ISO 14343-A	W 19 12 3 L Si/G 19 12 3 L Si
EN IOS 14343-B	SS316LSi
Material number	1.4430
AWS A5.9	ER316LSi

Area of application

Filler rod/filler wire of austenitic chromium-nickel-molybdenum steel with low carbon content for TIG or MAG welding of stainless cold tough, austenitic clad steels. The weld metal is tough at sub-zero down to -196°C and resistant to intercrystalline corrosion up to 400°C

Special hints

The structure is created austenitically with delta ferrite.

Composition of the filler rod/filler wire (typical data in %)

C	Si	Mn	Cr	Ni	Mo		
0.02	0.8	1.7	18	12	2.7		

Important base materials

1.4401 X5CrNiMo17-12-2, 1.4404 X2CrNiMo17-12-2, 1.4406 X2CrNiMoN17-11-2, 1.4429 X2CrNiMo17-13-3, 1.4435 X2CrNiMo18-14-3, 1.4432 X2CrNiMo17-12-3, 1.4436 X3CrNiMo17-13-3, 1.4409 GX2CrNiMo19-11-2, 1.4571 X6CrNiMoTi17-12-2, 1.4580 X6CrNiMoNb17-12-2, 1.4583 X10CrNiMoNb18-12

ASTM A 182 Gr. F316, F316L, F316LN, F316Ti; A213 Gr. TP316, TP316L, TP316LN, TP316Ti; A 312 Gr. TP316, TP316J, TP316LN, TP316Ti; A 314 Gr. 316, 316L, 316Ti, 316Cb; A 351 Gr. CFMN; A 403 Gr. WP316, WP316L, WP316LN; A 580 Gr. 316, 316L; A 688 Gr. AISI 316, TP316L, TP316LN; A 988 Gr. UNS S31600, UNS S31603, UNS S31653

Material properties

Shielding gas	Argon	Mechanical properties of the weld metal according to EN ISO 15792-1
Heat treatment	untreated	
Test temperature	20°C	
0.2%-yield strength $R_{p0.2}$	[MPa]	440
Tensile strength R_m	[MPa]	630
Elongation A ($L_0 = 5d_0$) %	[%]	35
Impact strength A_v	[J]	110

Applicable shielding gases (EN ISO 14175)

TIG: mixed gases argon I1, MAG: mixed gases e.g. M12

Approval

(Request current scope if required)

Product form (other dimensions available on request)

Spools	Ø mm	0.8	1.0	1.2	1.6		
Rods	Ø mm x 1000 mm	1.6	2.0	2.4	3.2	4.0	5.0