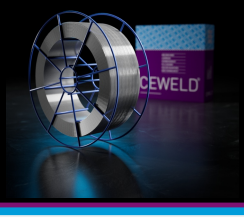

CEWELD 347Si

certilas® THE FILLER METAL SPECIALIST

TYPE

Filler metal for welding Nb stabilized stainless austenitic steels 18/8. (Type 19 9 Nb, 347Si)

APPLICATIONS

CEWELD® 347Si is designed for welding 18/8 steels, particularly types 321 and 347. It is also compatible with non-stabilized grades such as 304/304L. Typical operating temperatures range from -100 °C to approximately 400 °C. Main application areas include the food processing industry, breweries, pharmaceutical plants, construction, general engineering, and nuclear technology.

PROPERTIES

CEWELD® 347Si is suitable for low-temperature applications where a low carbon content and controlled ferrite content are recommended. This is demonstrated by its excellent impact strength values of **~200J at -50 °C** (>100 J down to -110 °C). CEWELD® 347Si can be welded without preheating at a maximum interpass temperature of 250 °C. Post-weld heat treatment (PWHT) is not necessary. However, CEWELD® 347Si is not recommended for high-temperature structural components where a carbon content between 0.04% and 0.08% is required for creep resistance. In this case, welding consumables from the 347H series are recommended (see CEWELD® 347H).

CLASSIFICATION

AWS	A 5.9: ER347Si
EN ISO	14343-A: G 19 9 Nb Si
F-nr	6
FM	5
W.Nr.	1.4551

SUITABLE FOR

ISO 15608: 8.1 (no Mo) 347, 19 9 Nb, 1.4551
1.4000, 1.4001, 1.4002, 1.4003, 1.4006, 1.4301, 1.4303, 1.4306, 1.4308, 1.4310, 1.4311, 1.4312, 1.4319, 1.4541, 1.4543, 1.4546, 1.4550, 1.4552, 1.4561, 1.4878
X 6 NiTi 18 10, X 6CrNiNb 18 10, G-X 5CrNiNb 18 9, X 5CrNi 18 7, X 2CrNi 19 11, G-X 2CrNi 18 9, X 5CrNi 18 10, X 5CrNi 18 12 G-X, 6CrNi 18 9, X 12CrNi 17 7, G-X 10CrNi 18 8
UNS S30400, S30403, S30453, S32100, S34700
AISI 347, 321, 302, 304, 304L, 304LN, CF8C

APPROVALS

TÜV ((12393)) CE

WELDING POSITIONS

TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%)

C	Si	Mn	Cr	Ni	Nb
0.04	0.7	1.9	19.5	10	0.6

ALL WELD MECHANICAL PROPERTIES

Heat Treatment	$R_{P0,2}$ MPa	Rm MPa	A5 (%)	Impact Energy (J) ISO-V -110°C	-60°C
As Welded /	420	590	35	150	200

REDRYING TEMPERATURE

Not required

GAS ACCORDING EN 14175

M13, M12