



# CEWELD 347Si

**TYPE** Filler metal for welding 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 ~150 J at -50 °C (>47 J down to -196 °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
W.Nr.	1.4551
F-nr	6
FM	5

**SUITABLE FOR** **ISO 15608: 8.1 / TÜV Groupe 29 (+22+21) / E347, 19 9 Nb, 1.4551**  
 1.4541, 1.4550, 1.4552 1.4319, 1.4306, 1.4306, 1.4301, 1.4303, 1.4308, 1.4310, 1.4312, 1.4878,  
 (1.4000, 1.4001, 1.4002, 1.4003, 1.4006)  
 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  
**ANSI: 321, 347**

**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

MECHANICAL PROPERTIES	Heat Treatment	R <sub>P0.2</sub> (MPa)	R <sub>m</sub> (MPa)	A <sub>5</sub> (%)	Impact Energy (J) ISO-V		Hardness
					-196°C	-110°C	
	As Welded	420	590	35	50	150	HRc

**REDRYING** Not required

**GAS ACC. EN ISO 14175** M13, M12