

Avesta FCW-2D 347/MVNb

Flux cored wire

Classifications

high-alloyed rutile

EN ISO 17633-A:

AWS A5.22:

T 19 9 Nb R M21 3 ; T 19 9 Nb R C1 3

E347T0-4 ; E347T0-1

Characteristics and field of use

Avesta FCW-2D 347/MVNb is a Nb-stabilised Cr-Ni flux-cored wire for welding steels that are stabilised with titanium or niobium, such as 1.4541/ASTM 321. A stabilised weldment has improved high temperature properties, e.g. creep resistance, compared to low-carbon non-stabilised grades. This wire is primarily used for applications with service temperatures above 400°C. Avesta FCW-2D 347/MVNb provides excellent weldability in flat as well as horizontal/vertical position. Welding in vertical-up and overhead positions is preferably done using FCW 347/MVNb-PW. Avesta FCW-2D 347/MVNb should be welded using direct current positive polarity (DC+) with a recommended wire stick-out of 15 – 20 mm.

Corrosion resistance:

Generally none. 347 type FCW can be used for cladding, which normally requires stress relieving at around 590°C. Such a heat treatment will reduce the ductility of the weld +20°C. Always consult expertise before performing post-weld heat treatment.

Base materials

For welding steels such as					
Outokumpu	EN	ASTM	BS	NF	SS
4541	1.4541	321	321S31	Z6 CNT 18-10	2337
-	1.4550	347	347S31	Z6 CNNb 18-10	2338

Typical analysis of all-weld metal (Wt-%)


C	Si	Mn	Cr	Ni	Nb
0.03	0.6	1.6	19.4	10.5	>8xC

Ferrite 7 FN; WRC-92

Mechanical properties of all-weld metal

Heat Treatment	Yield strength 0.2%	Tensile strength	Elongation ($L_0=5d_0$)	Impact values in J CVN
	MPa	MPa	%	+20°C:
untreated	420	600	35	75

Operating data

	Polarity = +	Shielding gas: Ar + 15 – 25% CO ₂ offers the best weldability, but 100% CO ₂ can also be used (voltage should be increased by 2V). Gas flow rate 20 – 25 l/min.
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Dimensions (mm)

Amperage A

1.2

125-280