Avesta FCW 308L/MVR-PW

Flux cored wire

Classifications		high-alloyed rutile
EN ISO 17633-A:	AWS A5.22:	
T 19 9 L R M21 3 ; T 19 9 L R C1 3	E308LT1-4 ; E308LT1-1	

Characteristics and field of use

Avesta FCW 308L/MVR-PW is designed for welding 1.4301/ASTM 304 type stainless steels. It is also suitable for welding steels that are stabilised with titanium or niobium, such as 1.4541/ASTM 321, 1.4878/321H and 1.4550/347 in cases where the construction will be operating at temperatures below 400°C. For higher temperatures a niobium stabilized consumable such as Avesta FCW-2D 347/MVNb is required. Avesta FCW 308L/MVR-PW has a stronger arc and a faster freezing slag compared to the 2D type. It is designed for all-round welding and can be used in all positions without changing the parameter settings. Weldability is excellent in the vertical-up and overhead welding positions. Avesta FCW 308L/MVR-PW should be welded using direct current positive polarity (DC+) with a recommended wire stick-out of 15 – 20 mm.

Corrosion resistance:
Corresponding to 1.4301/ASTM 304, i.e. very good under fairly severe conditions, e.g. in oxidising acids and cold or dilute reducing acids.

Base materials

For welding steels such as					
Outokumpu	EN	ASTM	BS	NF	SS
4301	1.4301	304	304S31	Z7 CN 18-09	2333
4307	1.4307	304L	304S11	Z3 CN 18-10	2352
4311	1.4311	304LN	304S61	Z3 CN 18-10 Az	2371
4541	1.4541	321	321S31	Z6 CNT 18-10	2337

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

C	Si	Mn	Cr	Ni
0.025	0.7	1.4	19.7	10.2

Ferrite 9 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	390	570	39	60

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.

Dimensions (mm)	*Amperage*
1.2	*150-240*