Avesta FCW-2D P5

Flux cored wire

Classifications		high-alloyed rutile
EN ISO 17633-A:	AWS A5.22:	
T 23 12 2 L R M21 3 ; T 23 12 2 L R C1 3	E309LMoT0-4 ; E309LMoT0-1	

Characteristics and field of use

Avesta FCW-2D P5 is a molybdenum alloyed wire of the 309MoL type, primarily designed for welding dissimilar joints between stainless steels and low-alloy steels. It is also widely used for surfacing low-alloy steels offering a composition similar to that of ASTM 316 from the first run. Avesta FCW-2D P5 provides excellent weldability in flat as well as horizontalvertical position. Welding in vertical-up and overhead positions is preferably done using FCW P5-PW. Avesta FCW-2D P5 should be welded using direct current positive polarity (DC+) with a recommended wire stick-out of 15 – 20 mm.

Corrosion resistance:
Superior to type 316L fillers. When used for overlay welding on mild steel a corrosions resistance equivalent to that of 1.4401/316 is obtained already in the first layer.

Base materials

For welding steels such as					
Outokumpu	EN	ASTM	BS	NF	SS
Avesta P5 is primarily used when surfacing unalloyed or low-alloy steels and when joining molybdenum-alloyed stainless and carbon steels.					

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

C	Si	Mn	Cr	Ni	Mo
0.025	0.7	1.4	22.9	12.6	2.7

Ferrite 25 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	500	700	30	55

Operating data

Polarity = +

Shielding gas: Ar + 15 – 25% CO_2
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 A*
1.2	*125-280*
1.6	*200-350*