Avesta 308L/MVR — TIG rod

Classifications			high-alloyed
EN ISO 14343-A:	AWS A5.9:		
W 19 9 L	ER308L		

Characteristics and field of use

Avesta 308L/MVR is designed for welding 1.4301/ASTM 304 type stainless steels. It can also be used for welding steels that are stabilized with titanium or niobium, such as 1.4541/ASTM 321 and 1.4550/ASTM 347 in cases where the construction will be operating at temperatures below 400°C. For higher temperatures a niobium stabilised consumable such as Avesta 347-Si/MVNb-Si is required. Avesta 308L/MVR is also available with high silicon content (308L-Si/MVR-Si). The higher silicon content will improve fluidity and minimise the spatter, giving a nicer weld bead appearance.

Corrosion resistance:
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 composition of welding rod (Wt-%)

C	Si	Mn	Cr	Ni
0.02	0.4	1.7	20.0	10.0

Ferrite 8 FN; WRC -92, 10FN;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:*	*-40°C:*	*-196°C:*
untreated	460	620	33	130	120	70

Operating data

Shielding gas:
Ar (99.95%) or Ar with an addition of 20 – 30% helium (He) or 1 – 5% hydrogen (H2).The addition of helium (He) and hydrogen (H2) will increase the energy of the arc.Gas flow rate 4 – 8 l/min.

Dimensions (mm)

1.2	*1.6*	*2.0*	*2.4*	*3.2*