Avesta 2507/P100-HF$^{Cu/W}$

Rutile-Basic stick electrode, high-alloyed, chemical resistant

Classifications

EN ISO 3581-A	AWS A5.4
E 25 9 4 N L B	E2595-15

Characteristics and typical fields of application

Avesta 2507/P100-HF$^{Cu/W}$ is a rutile-basic super duplex covered electrode for welding super duplex steel castings such as 2507(6A). The electrode is chemically tailored to meet tough super duplex requirements while at the same time offering weld metal ferrite levels of 35-50% after post weld heat treatment.

Avesta 2507/P100-HF$^{Cu/W}$ can successfully be used for repair welding of castings, but can also be used as a substitute for standard electrodes whose chemistry cannot give acceptable ferrite levels after heat treatment.

Corrosion resistance:

Excellent resistance to pitting and stress corrosion cracking in chloride containing environments. PREN >47. Meets the corrosion test requirements per ASTM G48 Methods A and E (50°C) both as welded and after PWHT. (Annealing at 1100 – 1150°C followed by short air cooling and quenching)

Base materials

EN	UNS		
1.4410 X2CrNiMoN25-7-4	S32750		

Typical analysis of all-weld metal (wt.-%)

	C	Si	Mn	Cr	Ni	Mo	N	Cu	W
wt.-%	0.03	0.5	0.9	25.4	8.7	3.9	0.24	0.7	0.7

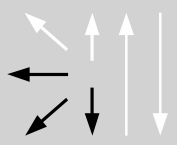
Mechanical properties of all-weld metal

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation ($L_0=5d_0$)	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	-50°C
u	**730** (≥550)	**880** (≥760)	**25** (≥25)	**64**	**42**
a	**560**	**830**	**30**	**140**	**90**

u untreated, as-welded

a annealed, at 1100 – 1150°C followed by short air cooling and quenching

Operating data



Polarity:	Electrode identification:	ø (mm)	L (mm)	Amps A
DC (+)	2507/P100-HF Cu/W	4.0	350	110 – 150
		5.0	350	150 – 220

Approvals

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