



## 2507/P100-4D

For welding steels such as Outokumpu	EN	ASTM	BS	NF	SS
SAF 2507®	1.4410	S32750	–	Z3 CND 25-06 Az	2328

**Standard designations**

EN 1600      E 25 9 4 N L R  
 AWS A5.4    E2594-17

**Characteristics**

AVESTA 2507/P100-4D electrodes give a high-alloy, duplex weld metal. They are thin-coated and specially designed for pipe welding and extreme position welding. It is characterised by its exceptionally good arc stability, weld pool control, slag removal and restriking properties. This makes it highly suitable for welding in restrained positions and under difficult site conditions, where it offers considerably higher productivity than manual TIG welding. It is also recommended for root runs and multipass welds in general fabrication of duplex stainless steels in all material thicknesses. Suitable for super duplex steels such as SAF 2507, ASTM S32750, ASTM S32760 and similar.

**Welding data**

DC+	Diam. mm	Current, A
	2.5	45 – 70
	3.25	55 – 100

**Typical analysis % (All weld metal)**

C	Si	Mn	Cr	Ni	Mo	N
0.03	0.8	0.8	25.0	9.3	3.6	0.22

Ferrite    30 FN    WRC-92

**Mechanical properties**

	Typical values (IIW)	Min. values EN 1600
Yield strength $R_{p0.2}$	700 N/mm <sup>2</sup>	550 N/mm <sup>2</sup>
Tensile strength $R_m$	880 N/mm <sup>2</sup>	620 N/mm <sup>2</sup>
Elongation $A_5$	24 %	18 %
Impact strength KV		
+20°C	40 J	
-46°C	30 J	
Hardness approx.	250 Brinell	

**Interpass temperature:** Max. 100°C.

**Heat input:** 0.5 – 1.5 kJ/mm.

**Heat treatment:** Generally none (in special cases quench annealing at 1100 – 1150°C).

**Structure:** Austenite with approx. 30% ferrite.

**Scaling temperature:** Approx. 850°C (air).

**Corrosion resistance:** Very good resistance to pitting and stress corrosion cracking in chloride containing environments. Pitting resistance in accordance with ASTM G48-A better than 40°C.

**Approvals**

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**Welding positions**