Thermanit 13/04

Stick electrode, high-alloyed, stainless, basic

Classifications

EN ISO 3581-A	AWS A5.4	Mat. No.
E 13 4 B 4 2	E410NiMo-15	1.4351

Characteristics and typical fields of application

Stainless. Corrosion resistant similar to matching 13 % Cr(Ni) steels / cast steel grades. High resistance to corrosion fatigue cracking. Wear resistant. Cavitation resistant. For joining and surfacing applications with matching 13 % Cr(Ni) and 13 % Cr steels / cast steel grades.

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Base materials

TÜV certified parent metal

1.4313 – (G)X5CrNi13-4; ACI Gr. CA 6 NM, S41500

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

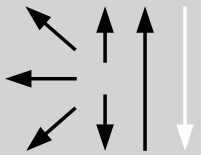
	C	Si	Mn	Cr	Mo	Ni
wt-%	0.04	< 0.4	0.5	12.0	0.5	4.5

Structure: Martensite, suitable for quenching and tempering

Mechanical properties of all-weld metal

Heat-treatment	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J	Hardness	
	MPa	MPa	%	+20 °C	HB30	HRC
600 °C / 8 h	600	800	15	50	310	
aw						38

Operating data



Polarity:	ø (mm)	L mm	Amps A
DC (+)	3.2	350	90 – 110
	4.0	350	120 – 145
	5.0	450	140 – 190

Welding instruction

Materials	Preheating	Postweld heat treatment
Matching steels / cast steel grades	Up to 10 mm wall thickness: none, over 10 mm wall thickness: 100 – 150 °C (212 – 302 °F)	Tempering or quenching and tempering, according to parent metal (8 h 600 °C (1112 °F), furnace cooling)
13 % Cr steels / cast steel grades	According to parent metal	None

Approvals

TÜV (01581), CE