Thermanit Chromo 9 V

Stick electrode, low-alloyed, basic

Classifications

EN ISO 3580-A	AWS A5.5	AWS A5.5M
E CrMo9 1 B 4 2 H5	E9015-B9	E6215-B9

Characteristics and typical fields of application

Basic covered CrMoVNb alloyed electrode.

Good welding characteristics in out of position work; high temperature resistant weld metal. For quenched and tempered 9 % chromium steels, in particular P 91 / T 91 according to ASTM.

Base materials

1.4903 – X 10 CrMoVNb 91, ASTM A199 Gr. T91; A213/213M Gr. T91; A355 Gr. P91 (T91)

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

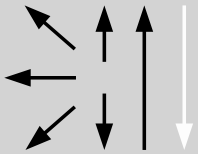
	C	Si	Mn	Cr	Mo	Ni	V	Nb	N
wt-%	0.09	0.2	0.6	9.0	1.1	0.8	0.2	0.05	0.04

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
	MPa	MPa	%	+20 °C
sr (760 °C / 2 h)	550	680	17	47
sr (760 °C / 4 h)	530	620	17	47

Creep rupture properties: According to base metal P91

Operating data



Polarity:	Redrying:	ø (mm)	L mm	Amps A
DC (+)	300 – 350 °C / 2 h (572 – 662 °F)	2.5	250	70 – 100
		3.2	350	100 – 145
		4.0	350	140 – 190
		5.0	450	160 – 240

Welding instruction

Materials	Preheating	Postweld heat treatment
200 – 250 °C / 200 – 300 °C	≤ 100 °C	760 °C / 2 h

Approvals

TÜV (06173), CE