

E Z 22 17 4 Mn N L R 1 2

Thermanit 20/16 SM

Stick electrode, high-alloyed, stainless, rutile

Classifications

EN ISO 3581-A

Mat. No. ≈1.3954

Characteristics and typical fields of application

Non-magentic; permeability in field of 8000 A/m: 1.01 max.; stainless; resistant to intercrystalline corrosion – wet corrosion up to 350 °C (662 °F). Seawater resistant. High toughness at subzero temperatures. Specially for joining and surfacing work with matching / similar non magnetic CrNiMo(Mn,N) steels / cast steel grades.

Base materials

1.3948 – X4CrNiMnMoN19-13-8; 1.3952 – X2CrNiMoN18-14-3; 1.4439 – X2CrNiMoN17-13-5; 1.3951 – X2CrNiMoN22-15; 1.3964 – X2CrNiMnMoNNb21-16-5-3; 1.5662 – X8Ni9

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

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	С	Si	Mn	Cr	Мо	Ni	Ν
wt-%	< 0.04	1.0	7.0	22.0	3.6	18.0	0.2

Structure: Austenite

Mechanical properties of all-weld metal

Heat- treatment	Yield strength R _{p0.2}	Yield strength R _{p1.0}	Tensile strength R _m	Elongation A $(L_0=5d_0)$	Impact work ISO-V KV J
	MPa	MPa	MPa	%	+20 °C
aw	430	450	640	30	70

Operating data

	Polarity:	ø (mm)	L mm	Amps A
\sim 1 1	DC (+) / AC	2.5	250	55 – 70
←		3.2	350	65 – 105
		4.0	350	110 – 140

Welding instruction

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Materials	Preheating	Postweld heat treatment
Matching / similar non magnetic steels / cast steel grades	None	None
Approvals		

WIWEB