Thermanit 20/16 SM

TIG rods, high-alloyed, stainless, non magnetic

Classifications

EN ISO 14343-A	Mat. No.
WZ 22 17 8 4 N L	1.3954

Characteristics and typical fields of application

Non magnetic; Permeability in field of 800 A/m: 1.01 max. Specially for joining and surfacing work with matching / similar non magnetic CrNiMo(Mn,N) steels/cast steel grades.

Stainless; resistant to intercrystalline corrosion and wet corrosion up to 350 °C (662 °F). Seawater-resistant.

High toughness at subzero temperatures

Base materials

1.3948 – X4CrNiMnMoN19-13-8;
1.3951 – X2CrNiMoN22-15;
1.3952 – X2CrNiMoN18-14-3;
1.3953 – X2CrNiMo18-15;
1.3964 – X2CrNiMoNNb21-16-5-3;
1.4439 – X2CrNiMoN17-13-5

Typical analysis of the TIG rods (wt.-%)

	C	Si	Mn	Cr	Mo	Ni	N
wt-%	0.03	0.7	7.5	22.0	3.6	17.5	0.24

Structure: Austenite, no ferrite

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	450	480	680	30	70

Operating data

Polarity:	Shielding gas:	Marks:	ø (mm)	L mm
DC (–)	(EN ISO 14175) I1	WZ 22 17 8 4 NL / 1.3954	2.0	1000
			2.4	1000

Welding instruction

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

Approvals

GL, WIWEB