Thermanit 25/22 H

TIG rods, high-alloyed, stainless

Classifications		
EN ISO 14343-A	AWS A5.9	Mat. No.
W 25 22 2 N L	ER310(mod.)	1.4465

Characteristics and typical fields of application

Stainless; resistant to intercrystalline corrosion and wet corrosion up to 350 °C (662 °F). Good resistance to Cl^--bearing environment, pitting corrosion and nitric acid. Huey test acc. to ASTM A262: max. 1.5 µm/48 h (0.25 g/m^{2}h), selective attack max. 100 µm. Particularly suited for corrosion conditions in urea synthesis plants. For joining and surfacing applications with matching/similar steels. For weld cladding on high temperature steels and for fabricating joints on claddings

Base materials

TÜV-certified parent metal

1.4466 – X2CrNiMoN25-22-2; and combinations with 1.4465 – X1CrNiMoN25-25-2;
1.4435 – X2CrNiMo18-14-3

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

	C	Si	Mn	Cr	Mo	Ni	N
wt-%	0.02	0.20	6.0	25.0	2.2	22.5	0.13

Structure: Austenite, max. ferrite 0.5 %

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	400	430	600	30	80

Operating data

Polarity:	Shielding gas:	Marks:	ø (mm)	L mm
DC (–)	(EN ISO 14175) I1	1.4465 / W 25 22 2 NL	1.6	1000
			2.0	1000
			2.4	1000
			3.2	1000

Welding instruction

Materials	Preheating	Postweld heat treatment
Matching/similar steels	None	None
Claddings and joining of cladded creep-resistant steels / cast steel grades	According to parent metal mostly 150 °C (302 °F)	In case of excessive hardening of the parent metal, stress relieving at 510 °C (950 °F) 20 h max., annealing above 530 °C (986 °F) only prior to welding the last pass

Approvals

TÜV (04875), (Stamicarbon), (Snamprogetti), CE