TIG rods, nickel-base

Brand Standard AWS Standard EN ISO	Chemical Composition (%) Typical Values	Mechanical Properties Typical Values	Ø x L (mm)	Approvals	Characteristics and Applications
THERMANIT NICRO 82 AWS A5.14: ERNiCr-3 EN ISO 18274: S Ni 6082 (NiCr20Mn3Nb)	C: 0.02 Si: 0.1 Mn: 3.0 Cr: 20.0 Ni: >67.0 Nb: 2.5 Fe: <2	UTS: 620 MPa YS: 400 MPa El: 35% CVN Impact: +20°C: 150J -269°C: 32J	1.6 x 1000 2.0 x 1000 2.4 x 1000 3.2 x 1000	TÜV, DB, DNV·GL, CE	Stainless; heat and high temperature resistant. Good toughness at subzero temperatures as low as –269°C (–452°F). Good for welding austenitic ferritic joints. No Cr carbide zone that becomes brittle in the ferrite weld deposit transition zone, even as a result of heat treatments above 300°C (572°F). Good for fabricating tough joints and surfacing with heat resistant Cr and CrNi steels and Ni-alloys.
THERMANIT 625 AWS A5.14: ERNiCrMo-3 EN ISO 18274: S Ni 6625 (NiCr22Mo9Nb)	C: 0.03 Si: 0.1 Mn: 0.1 Cr: 22.0 Mo: 9.0 Ni: Bal. Nb: 3.6 Fe: ≤0.5	UTS: 740 MPa YS: 460 MPa El: 35% CVN Impact: +20°C: 120J -196°C: 100J	1.6 x 1000 2.0 x 1000 2.4 x 1000 3.2 x 1000	TÜV, DB, DNV, CE	High resistance to corrosive environment. Resistant to stress corrosion cracking. Resistant to scaling up to 1000°C (1832°F). Temperature limit: 500°C (932°F) max. in sulphureous atmospheres. High temperature resistant up to 900°C (1652°F). Good toughness at subzero temperatures as low as –196°C (–321°F). For joining and surfacing work with matching / similar corrosion resistant materials as well as on matching and similar heat resistant, high temperature resistant steels and alloys. For joining and surfacing work on cryogenic austenitic CrNi(N) steels / cast steel grades and on cryogenic Ni-steels suitable for quenching and tempering.