TIG rods for repair of cracked material

Stainless Steels

Product Name Classification AWS Classification EN Classification DIN	Mechanical Properties Typical Values	Size (mm)	Approvals	Characteristics and Applications
UTP A 651 AWS A5.9: ER 312 EN ISO 14343-A: W 29 9	UTS: 750 MPa YS: 650 MPa El: 25% CVN Impact: 27J	1.2 x 1000 1.6 x 1000 2.0 x 1000 2.4 x 1000 3.2 x 1000	-	UTP A 651 is suitable for joining and surfacing of steels of difficult weldability, repair of hot and cold working steels, cushioning layers. The weld metal of UTP A 651 is scale resistant up to 1150°C. Crack and wear resistant, stainless and work hardening. Hardness of the pure weld metal: approx. 240 HB

Copper alloys

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UTP A 381 AWS A5.7: ER Cu EN ISO 24373: S Cu 1898 (CuSn1)	UTS: 200 MPa YS: 50 MPa El: 30%	1.6 x 1000 2.0 x 1000 2.4 x 1000 3.2 x 1000	-	UTP A 381 is used for oxygen free copper types according to DIN 1787 OF-Cu, SE-Cu, SW-Cu, SF-Cu. The main applicational fields are in the apparatus- and pipeline construction.
UTP A 387 AWS A5.7: ER CuNi EN ISO 24373: S Cu 7158 (CuNi30Mn1FeTi)	UTS: >360 MPa YS: >200 MPa El: >30%	1.6 x 1000 2.0 x 1000 2.4 x 1000 3.2 x 1000	TÜV, GL	UTP A 387 is used for copper nickel alloys with up to 30% nickel according to DIN 17664, such as CuNi20Fe (2.0878), CuNi30Fe (2.0882). Chemical industry, seawater desalination plants, ship building, offshore technique. The weld metal of UTP A 387 is resistant to seawater and cavitation.

Nickel Alloys

Product Name Classification AWS Classification EN Classification DIN	Mechanical Properties Typical Values	Size (mm)	Approvals	Characteristics and Applications
UTP A 068 HH AWS A5.14: ER NiCr-3 EN ISO 18274: S Ni 6082 (NiCr20Mn3Nb)	UTS: >640 MPa YS: >380 MPa El: >35% CVN impact: 196° C: 80J	1.6 × 1000 2.0 × 1000 2.4 × 1000 3.2 × 1000	TÜV, ABS, DNV GL, CE	UT P A 068 HH is predominantly used for joining identical or similar highly heat-resistant Ni-base alloys, heat-resistant austenites, and for joining heat-resistant austenitic-ferritic materials. UT P A 068 HH can be used for repair welding of hardly weldable steels such as heat-treatable steels or tool steels. Additionally mixed joints of austenitic and ferritic materials with elevated service temperatures can be welded. The welding deposit is hot-cracking-resistant and does not tend to embrittlement.
UTP A 6222 Mo AWS A5.14: ER NiCrMo-3 EN ISO 18274: S Ni 6625 (NiCr22Mo9Nb)	UTS: >740 MPa YS: >460 MPa El: >30% CVN Impact: >100J -196°C: >85J	1.6 x 1000 2.0 x 1000 2.4 x 1000 3.2 x 1000* * available on request	TÜV, GL, DNV, ABS	UT P A 6222 Mo has a high nickel content and is suitable for welding high strength and high corrosion resistant nickel base alloys. It can be used for joining ferritic steel to austenitic steel as well as for surfacing on steel. It is also possible to weld 9% nickel steels using this wire due to its high yield strength. Its wide range of uses is of particular significance in aviation, in chemical industry and in applications involving seawater. The special features of the weld metal of UT P A 6222 Mo include a good creep rupture strength, corrosion resistance, resistance to stress and hot cracking.