UTP 7013 Mo

Stick electrode, nickelbase alloyed

Classifications

AWS A5.11 / SFA-5.11	EN ISO 14172
E NiCrMo-6	Ni 6620 (NiCr14Mo7Fe)

Characteristics and typical fields of application

The high-efficiency semi-synthetic nickel-base stick electrode UTP 7013 Mo is especially suited for welding cold-tough nickel steels, such as X8Ni9. Recovery is 120%. The typical application field is welding of cryogenic gas storage tanks and tankers (9% Ni steels for Liquefied Natural Gas LNG, 5% Ni steels for Liquefied Ethylene Gas LEG). UTP 7013 Mo is designed for improved weldability on AC-current in all positions except vertical down, including overhead-welding with a stable arc, low spatter, easy slag-removal and good bead appearance.

Typical analysis

	C	Si	Mn	Cr	Ni	Mo	W	Nb	Fe
wt.-%	0.05	0.5	3.5	15.0	Bal.	7.0	1.6	1.6	5.0

Mechanical properties of all-weld metal - typical values (min. values)

Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact energy ISO-V KV J
>420	>690	>35	>70

u untreated, as welded

Operating data

Polarity	DC+/AC
Redrying	2-3 h/250 - 300 °C

Dimension mm	Current A
2.5 x 300	50 - 70
3.2 x 300	80 - 120
4.0 x 350	110 - 150
5.0 x 400	120 - 160

The weld zone must be clean and properly degreased. Prior to welding, the stick electrodes must be re-dried for 2-3 hours at 250-300ºC. Weld with a short arc and sufficiently high amperage settings. To avoid end crater cracks, the crater must be properly filled, the arc drawn away to the side.

Approvals

BV, DNV