UTP A 6170 Co

NiCrCoMo rods for high-temperature applications

Classifications		
EN ISO 18274	AWS A5.14	Material-No.
S Ni 6617 (NiCr22Co12Mo9)	ER NiCrCoMo-1	2.4627

Characteristics and field of use

UTP A 6170 Co is particularly used for joining heat-resistant and creep-resistant nickel-base alloys of identical and similar nature, high-temperature austenitic and cast alloys, such as:

1.4958	X5NiCrAlTi 31 20	UNS N08810
1.4959	X8NiCrAlTi 32 21	UNS N08811
2.4663	NiCr23Co12Mo	UNS N06617

The weld metal is resistant to hot-cracking. It is used for operating temperatures up to 1100 °C. Scale-resistant at temperatures up to 1100 °C in oxidizing resp. carburizing atmospheres, e. g. gas turbines, ethylene production plants.

Typical analysis in %

C	Si	Cr	Mo	Ni	Co	Ti	Al	Fe
0.06	<0.3	22.0	8.5	balance	11.5	0.4	1.0	1.0

Mechanical properties of the weld metal

Yield strength $R_{P0.2}$	Tensile strength R_m	Elongation A	Impact strength K_V
MPa	MPa	%	J (RT)
> 450	> 750	> 30	> 120

Welding instruction

Clean welding area carefully. Keep heat input as low as possible and interpass temperature at max. 150 °C.

Approvals

TÜV (No. 05450; 05451)

Rod diameter x length [mm]	Current type	Shielding gas (EN ISO 14175)	
1.6 x 1000	DC (-)	I 1	R 1
2.0 x 1000	DC (-)	I 1	R 1
2.4 x 1000	DC (-)	I 1	R 1
3.2 x 1000	DC (-)	I 1	R 1