

# UTP A 6170 Co

nickel alloys

## Classifications

NiCrCoMo rods

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

<i>Yield strength <math>R_{p0.2}</math></i>	<i>Tensile strength <math>R_m</math></i>	<i>Elongation <math>A</math></i>	<i>Impact strength <math>K_V</math></i>
<i>MPa</i>	<i>MPa</i>	<i>%</i>	<i>J [RT]</i>
> 450	> 750	> 30	> 120

## Welding instructions

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

## Approvals

TÜV (No. 05451)

## Form of delivery and recommended welding parameters

<i>Rod diameter x length [mm]</i>	<i>Current type</i>	<i>Shielding gas (EN ISO 14175)</i>	
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

GTAW – TIG rods

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