

basic coated NiCrMo stick electrode

| Classifications | | | | |
|--------------------------|--------------------|--------------|--|--|
| EN ISO 14172 | AWS A5.11 | Material-No. | | |
| E Ni 6117 (NiCr22Co12Mo) | ENiCrCoMo-1 (mod.) | 2.4628 | | |

Characteristics and field of use

UTP 6170 Co is suitable for joining high-temperature and similar nickel-base alloys, heat resistant austenitic and cast alloys, such as 2.4663 (NiCr23Co12Mo), 2.4851 (NiCr23Fe), 1.4876 (X10 NiCrAlTi 32 21),1.4859 (GX10 NiCrSiNb 32 20). The weld metal is resistant to hot-cracking and is used for service temperatures up to 1100° C. Scale-resistance up to 1100° C in oxidizing and carburized atmospheres, e. g. gasturbines, ethylene production plants.

UTP 6170 Cocan be welded in all positions except vertical-down. It has a stable arc. The seam is finely rippled and notch-free. Easy slag removal.

Preheating temperature should be adjusted to the base material. Post weld heat treatments can be applied independently of the weld metal.

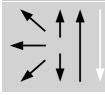
| Typical analysis in % | | | | | | | | | |
|-----------------------|-----|-----|------|-----|---------|------|-----|-----|-----|
| С | Si | Mn | Cr | Мо | Ni | Co | Al | Ti | Fe |
| 0,06 | 0,7 | 0,1 | 21,0 | 9,0 | balance | 11,0 | 0,7 | 0,3 | 1,0 |

| Mechanical properties of the weld metal | | | | |
|---|---------------------------------|--------------|--------------------------------|--|
| Yield strength R _{P0,2} | Tensile strength R _m | Elongation A | Impact strength K _V | |
| MPa | MPa | % | J | |
| > 450 | > 700 | > 35 | > 80 | |

Welding instruction

Hold stick electrode as vertically as possible, keep a short arc. Use string bead technique. Fill end crater carefully. Interpass temperature max. 150° C. Redry stick electrodes for 2-3 h / $250-300^{\circ}$ C.

Welding positions



Current type DC (+)

Approvals

TÜV (No. 04661)

| Recommended welding parameters | | | | | |
|--------------------------------|-----------|-----------|-----------|--|--|
| Electrodes Ø x L [mm] | 2,5 x 250 | 3,2 x 300 | 4,0 x 350 | | |
| Amperage [A] | 55 – 75 | 70 – 90 | 90 – 110 | | |