

Classifications

Material-No.	AWS A5.11 / SFA-5.11	EN ISO 14172
2.4621	ENiCrMo-3	E Ni 6625 (NiCr22Mo9Nb)

Characteristics and typical fields of application

UTP 6222 Mo is particularly suited for joining and surfacing on nickel alloys, austenitic steels, low temperature nickel steels, austenitic-ferritic-joints and claddings of the same or similar nature, like 2.4856 (NiCr22Mo 9 Nb), 1.4876 (X30 NiCrAlTi 32 20), 1.4529 (X2 NiCrMoCu 25 20 5).

The weld metal is heat resistant and suitable for operating temperatures up to 1000 °C. It must be noted that a slight decrease in ductility will occur if prolonged heat treatment is given within the temperature range 600 – 800 °C. Scale-resisting in low-sulphur atmosphere up to 1100 °C. High creep strength.


Typical analysis

	C	Si	Mn	Cr	Ni	Mo	Nb	Fe
wt.-%	0.03	0.4	0.6	22.0	bal.	9.0	3.3	<1

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

Condition	Yield strength	Tensile strength	Elongation A	Impact energy ISO-V KV J		
	$R_{p0.2}$	R_m	$(L_0=5d_0)$		-196°C	
	MPa	MPa	%	J		
u	>450	>760	>30	>75	>45	>75

Operating data

	Polarity	DC +	Dimension mm	Current A
	Redrying	250 - 300°C / 2 - 3 h	2.5 × 300	50 – 65
			3.2 × 350	70 – 95
			4.0 × 350	90 – 120
			5.0 × 400	120 – 160

Welding instructions

Opening angle of the prepared seam approx. 70°, root gap approx. 2 mm. Weld stick electrode with slight tilt and short arc. String beads are welded. The interpass temperature of 150° C and a max. weaving with 2,5 x diameter of the stick electrode core wire should not be exceeded. Redry the stick electrodes 2 – 3 hours at 250 – 300° C before use and weld them out of a warm electrode carrier.

Approvals

TÜV (No. 03610), DNV, ABS, BV