

Classifications

EN ISO 14172	AWS A5.11 / SFA-5.11	Material-No.
E Ni 6704 (NiCr25Fe10Al3YC)	E NiCrFe-12 (mod.)	2.4649

Characteristics and typical fields of application

UTP 6225 AI is suitable for joining high-temperature and heat resistant nickel-base alloys of identical and similar nature, such as 2.4633 (NiCr25-FeAlY), 2.4851 (NiCr23Fe) and high nickel containing cast alloys. The special features of the weld metal include an excellent resistance against oxidation and carburization and a good creep rupture strength. For service temperature up to 1200° C, e. g. steel tubes, rolls and baffles in ovens, ethylene cracking tubes, muffles.


Typical analysis

	C	Si	Mn	Cr	Ni	Ti	Fe	Al	Y	Zr
wt.-%	0.2	0.6	0.1	25.0	bal.	0.1	10.0	1.8	0.02	0.03

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
MPa	MPa	%	RT
550 (≥ 500)	740 (≥ 700)	15	40

Operating data

	Polarity	DC +	Dimension mm	Current A	
				2.5 × 250	50 – 65
				3.2 × 300	80 – 95
				4.0 × 350	90 – 120

Welding instructions

Hold stick electrode as vertically as possible, keep a short arc. Use string beads technique and fill end crater carefully. Interpass temperature max. 150° C. Redry stick electrodes for 2 – 3 h / 250 – 300° C.

Approvals

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