

Classifications

AWS A5.6 / SFA-5.6	EN ISO 17777	Material-No.
E Cu (mod.)	E Cu 1893 (CuMn2)	2.1363

Characteristics and typical fields of application

The pure copper stick electrode is suitable for joining and surfacing of all commercial pure, oxygen-free copper grades acc. to DIN 1976, such as:

Material.no.	Short mark
CW008A	Cu-OF
CW021A	Cu-HCP
CW023A	Cu-DLP
CR024A	Cu-DHP

Properties of the weld metal

UTP 39 shows a pore-free, well-deoxidized and crack-proof weld metal. Its corrosion resistance is equal to commercial copper grades.


Typical analysis

	Mn	Cu
wt.-%	1.5	> 97

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

Tensile strength R_m	Elongation A ($L_0=5d_0$)	Hardness	Electrical conductivity	Melting range
MPa	%	HB	S x m / mm ²	°C
> 200	> 35	ca. 60	ca. 20	1000-1500

Operating data

	Polarity	DC +	Dimension mm	Current A	
				2.5 x 350	60 – 90
				3.2 x 350	80 – 100
				4.0 x 450	110 – 130

Welding instructions

Clean welding zone thoroughly. Pre-heating of copper to 400-600°C depending on wall thickness, maintain the temperature during the welding process. Keep the arc short with steep (vertical up) stick electrode guidance. Choose the biggest possible diameter of stick electrode. Use dry stick electrodes only. If necessary, re-drying for 2-3 hours at 150°C.

Approvals

DB (Nr. 63.138.02)