

**Classifications** basic-coated pure copper stick electrode

DIN 1733	AWS A5.6	Material-No.
EL-CuMn2	ECu (mod.)	2.1363

**Characteristics and field of use**

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

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

**Typical analysis in %**

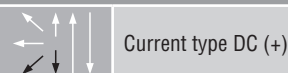
Cu	Mn
> 97	1.5

**Mechanical properties of the weld metal**

<i>Yield strength</i> $R_{p0.2}$	<i>Hardness</i>	<i>Elongation</i>	<i>Electrical conductivity</i>	<i>Melting range</i>
MPa	HB	%	$S \times m / mm^2$	°C
> 200	approx. 60	> 35	approx. 20	1000 – 1050

**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 h / 150 °C.

**Welding positions****Approvals**

DB (No. 63.138.02)

**Form of delivery and recommended welding parameters**

<i>Electrodes</i> $\varnothing \times L$ [mm]	2.5 x 350	3.2 x 350	4.0 x 450
<i>Amperage</i> [A]	60 – 90	80 – 100	110 – 130