G-TECH CuSn

SMAW

COPPER ALLOYS
Cu

DESCRIPTION

Electrode with special coating and pure copper core.

Special electrode for welding of copper base alloys. It has an excellent electrical conductivity. It is specific for welding of electrolytic cells and components for steel plants. Phosphorus and silicon act primarily as deoxidizers, the other elements improve ease of welding and the properties of the final weldment. Preheating, 200°C to 500°C, is desirable on most work especially on thick base metal. Also suitable for weld overlays on steel component. Not suitable for stainless steels because Cr pick-up cause embrittlement.

SPECIFICATIONS

ISO	-	**AWS A5.6**	ECu
DIN 1733	EL-CuMn2	**Werkstoff Number**	-
Certifications	-	**Shielding**	-
Positions	PA, PB, PC, PD, PF	**Current**	DC+

ASME QUALIFICATIONS

F-No (QW432)	31
A-No (QW442)	-

FERRITE

-

PREN

-

HARDNESS

70HB

CHEM. COMP. %

	DEFAULT
Mn	1.5
Sn	0.9
Si	0.2

MECHANICAL PROPERTIES

	MIN	VARIANT
Tensile strength R_m MPa	170	180
Yield strength $R_{p0.2}$ MPa	-	70
Elongation A (L_0=5d_0) %	20	33
Impact Charpy ISO-V	-	-
Impact Charpy ISO-V	-	-

WELDING PARAMETERS

	2.5 mm	3.2 mm	4 mm
Ampere	55A - 60A	80A - 90A	100A - 120A
Voltage	-	-	-
Packaging	pcs/kg	pcs/kg	pcs/kg
Packaging Type	Carton box	Carton box	Carton box

Cu

DESCRIPTION

APPLICATION

It generates a deoxidized pure copper deposit, ensuring optimal thermal and electrical conductivity. Common applications encompass plates for chemical plants and molds, as well as stills, calorifiers, rods, and wires for electrical components, along with tubes for heat exchangers. With the exception of very thin materials (<3mm thick), a preheat becomes necessary. The specified preheat varies, ranging from approximately 100°C for 6mm thick materials to around 400/500°C for materials measuring 15mm in thickness.

ALLOY TYPE

Deoxidized pure copper.

MICROSTRUCTURE

Single phase (fcc).

MATERIALS

Oxygen free copper.