



# TIG CUMN13

Old reference: TIG Cu118

## Classification

AWS A5.7 : ERCuMnNiAl

ISO 24373 : S Cu 6338 (CuMn13Al8Fe3Ni2)

## Description & Applications

Solid rod for GTAW of Copper-Aluminium, for surfacing on steels and cast iron as well as for cavitation resistant overlays. It has high resistance to wear and marine / sea water corrosion.

**Main applications:** Ship building, chemical industry, surfacing of wearing surfaces, assemblies exposed to sea water, exchanger for petrochemical and electrical plant.

### Base materials:

| UNS    | DIN          | Material N° |
|--------|--------------|-------------|
| C62300 | CuAl10Fe3Mn2 | 2.0936      |
| C63000 | CuAl10Ni5Fe4 | 2.0966      |
|        | G-CuAl10Fe   | 2.0940      |
|        | CuAl9Mn2     | 2.0960      |
|        | G-CuAl8Mn    | 2.0962      |

## Typical Chemical Composition ( % )

|      | Al  | Fe  | Mn   | Ni+Co | Pb    | Si   | Zn    | O/T   | Cu   |
|------|-----|-----|------|-------|-------|------|-------|-------|------|
| Min  | 7.0 | 2.0 | 11.0 | 1.5   |       |      |       |       |      |
| Max  | 8.5 | 4.0 | 14.0 | 3.0   | 0.02  | 0.10 | 0.15  | 0.50  | Rem. |
| Type | 8.0 | 2.3 | 12.0 | 2.1   | 0.005 | 0.04 | 0.005 | <0.50 | Rem. |

## All Weld Metal Mechanical Properties

|      | R <sub>p0.2</sub> ( MPa ) | R <sub>m</sub> ( MPa ) | A <sub>5</sub> ( % ) |
|------|---------------------------|------------------------|----------------------|
| Min  | -                         | -                      | -                    |
| Max  |                           |                        |                      |
| Type | 400                       | 650                    | 20                   |

## Welding Current & Instructions

| Welding mode | Shielding Gas  |
|--------------|--|
| GTAW<br>= -  | ISO 14175:<br>I1 (100% Ar) / I2 (100% He) / I3 (Ar+ 5-30%He)<br>5-10 L/min |

Preheating of massive parts between 200°C (>6mm) up to 500°C (>15mm).

FT En-TU11-170220

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**Fumes:** Consult information on MSDS, available upon request.

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