CEWELD®

# CuAl8Ni6 Tig

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| CATEGORY | GMAW-GTAW Solid wires |
| TYPE | Copper Aluminium Nickel alloy for GTAW welding (Tig) |
| APPLICATIONS | Desalting installations, CuNiAl ship propellers, cladding against corrosion, cladding against wear, gliding surfaces, shipbuilding, pump building, shafts, guide grooves, tube systems etc. |
| PROPERTIES | • The weld metal is a Cu-Al-Ni bronze<br>• Sound, pore free deposits on ferrous and non-ferrous base materials<br>• Seawater, wear and corrosion resistance; for example when seawater, cavitation and erosion are simultaneously affecting the weld deposit. |
| CLASSIFICATION | AWS A 5.7: ER CuNiAl<br>EN ISO 14640: S Cu 6328 (CuAl9Ni5Fe3Mn2)<br>DIN: W.Nr. 2.0923<br>DIN 1733T.1: SG CuAl8Ni6 |
| SUITABLE FOR | CuNiAl, CuAlNi, aluminium bronze, ship propellers, 2.0923, Joint welds or building up of aluminum bronze. Cladding (steel) components undergoing metal to metal wear under high pressure. Especially suited for marine environments. The addition of nickel improves corrosion resistance in heated and rough seawater. |
| APPROVALS | ABS in progress |
| WELDING POSITIONS: |   |

## WELD DEPOSIT WEIGHT %

| Cu | Mn | Fe | Cr | Ni | Mo | Al | Melting range |
|---|---|---|---|---|---|---|---|
| Rem | 1.5 | 3.20 | - | 4.50 | - | 8.0 | 1015-1045ºC |

## TYPICAL MECHANICAL PROPERTIES

| Heat Treatment | $R_{P0,2}$ (N/mm$^2$) | Rm (N/mm$^2$) | A5 (%) | Impact Energy (J) ISO-V -20°C | -40°C | -60°C | Hardness HB |
|---|---|---|---|---|---|---|---|
| AW | 400 | 700 | 15 | | | | 200 |

AW: as welded

## WELDING PARAMETERS / PACKING

| Welding Parameters | | Packing (kg) | |
|---|---|---|---|
| D (mm) | Current (A) (DC-) | single | master |
| 2.0 x 1000 | 120-180 | 5 | 25 |
| 2.4 x 1000 | 160-230 | 5 | 25 |
| 3,2 x 1000 | 200-330 | 5 | 25 |
| 6.0 x 1000 | flame welding | 5 | 25 |
| 8.0 x 1000 | flame welding | 5 | 25 |
| 10.0 x 1000 | flame welding | 5 | 25 |
| 12.0 x 1000 | flame welding | 5 | 25 |

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| REDRYING TEMPERATURE | Not required |
| GAS ACC. EN ISO 14175: | I, (pure Argon) |