ALMAG

# DATA SHEET:
# CZA26 CW626N

HOT FORGING

HUG

# CZA26 CW626N

**Anti dezincification alloy with low lead release.**

It was created to contain the release of lead in water destined for human consumption to a minimum. Arsenic and aluminum also significantly reduce dezincification. Good hot plastic deformability. Good workability characteristics for chip removal. Complies with the requirements of 4MS, replaces the CW602N for contact with drinking water.

## NAME OF ALLOY

**UNI EN:** CW626N - CuZn33Pb1.5AlAs

## CHEMICAL COMPOSITION UNI EN 12164 ED.2016

| Cu | Pb | Sn | Fe | Ni | Al | Mn | As | Zn | Other elements |
|---|---|---|---|---|---|---|---|---|---|
| min. 64.0<br>max 66.0 % | 1.2<br>1.7 % | ≤0.3 % | ≤0.3 % | ≤0.2 % | 0.8<br>1.0 % | ≤0.1 % | 0.02<br>0.15 % | diff. | ≤0.2 % |

Elements not listed must be less then 0.02 %.
Group of restriction of the surface in contact with drinking water: B,D.

## HEAT TREATMENTS

### SOLUBILIZATION OF RESIDUAL β PHASE

To optimise the material's corrosion resistance a thermal treatment between 500°C and 550°C for 2 hours and cooling within the furnace is required.
This treatment following hot forging allows solubilization of the residual beta phase to render the material resistant to dezincification.
The omission of this treatment does not allow the alloy to offer the anti-dezincification performance that it is designed for.

### STRESS RELIEVING

Allows for redistribution of tensions induced by mechanical processing, reducing the risk of stress corrosion cracking.
The treatment consists of heating the items to 200°C - 250°C for 2 hours and cooling within the furnace.

## TECHNOLOGICAL PROPERTIES

| | | | low ▯▯▯▯▯▯▯ excellent |
|---|---|---|---|
| **Structure** | α | **Machinability** | |
| **Density** | 8.4 kg/cm$^2$ | **Weldability** | |
| **Electrical conductivity** | 20% IACS | **Hot forming** | |
| **Coeff. of thermal expansion** | 21.5 10$^{-6}$/K | **Cold forming** | |
| **Thermal conductivity*** | 95 W/(m K) | **Corrosion resistance**** | <200 µm |
| **Specific heat** | 380 J/(kg K) | | |
| **Elasticity module** | 96 kN/mm$^2$ | | |
| **Melting point** | 875-910 °C | | |

*at room temperature
**use care to ascertain compatibility with chemical substances

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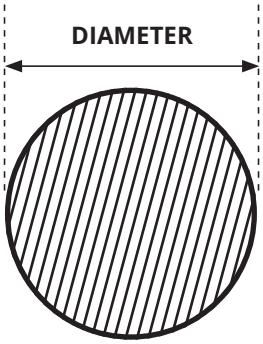


## MECHANICAL PROPERTIES UNI EN 12164 ED.2016

| Condition of material | Diameter mm | | Hardness HB | |
|---|---|---|---|---|
| | from | to (included) | min. | max |
| **M** | All | | As a product | |
| **H070** | 8 | 120 | 70 | 150 |

Any special hardness values must be defined when ordering

| Rm N/mm² | $Rp_{0.2}$ N/mm² | A% |
|---|---|---|
| 440-460* | 330-360 | 24-30 |

*The values shown are not regulated and are only indicative

## DIMENSIONS, TOLERANCES, AND STRAIGHTNESS UNI EN 12164 ED.2016

| Nominal diameter (mm) | | TOLERANCES | | Diameter mm | | Length of bar | Tolerance mm |
|---|---|---|---|---|---|---|---|
| | | Class A | Class B | | | | |
| 10 | 18 | +/- 0.25 | +/- 0.14 | 10 | 30 | 3.0 - 5.0 | +/- 100 |
| 18 | 30 | +/- 0.30 | +/- 0.17 | 30 | 50 | 3.0 - 5.0 | +/- 200 |
| 30 | 50 | +/- 0.60 | +/- 0.20 | 50 | 80 | 3.0 | +/- 300 |
| 50 | 80 | +/- 0.70 | +/- 0.37 | | | | |
| 80 | 120 | +/- 2 | | | | | |

The standard “Extruded calibrated” product is produced in Class B up to and including Ø80 mm
Semi-finished products over Ø45 mm can be supplied in the “pressed” and “rolled” forms with Class A tolerance

| Diameter (mm) | | Deviation from straightness in mm | |
|---|---|---|---|
| | | Every 400 mm | Every m of length L ≥ 1 |
| 10 | 50 | 0.4 | 1.0 x L |

## BAR FINISHING AND PACKAGING

| | |
|---|---|
| **Bar ends** | finishing with saw cut and chamfer |
| **Bar surface** | not pickled |
| **Packaging** | 1000 kg bundle – 3/5 metal straps<br>different bundle packagings and quantities are possible upon request |
| **Identification** | adhesive label on bundle strap |

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