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Material Datasheet:
CuZn42
(CW510L)

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MACHINING / STAMPING BRASS RODS

CuZn42

**Low Lead Alloy
for both
machining
and hot
stamping rods**

CuZn42 alloy integrates the 4MS Composition List of accepted metallic materials to be in contact with drinking water. It has good characteristics for machining operations, allowing to obtain optimum results through free cutting operations. These characteristics allied to its satisfactory behavior when cold and hot forming operations, make this the standard alloy among the low lead alloys.

MATERIAL DESIGNATION

| ASBW | International | EN | UNS | JIS | Further Restrictions** |
|------|---------------|--------|--------|-----|------------------------------|
| B17 | CuZn42 | CW510L | C28500 | - | 4 MS Common Approach, Part B |

REFERENCE CHEMICAL COMPOSITION IN % (MAIN ELEMENTS) *

| Material | Cu | Pb | Ni | Fe | As | Sn | Al | Bi | Zn | Other elements |
|----------|------|-----|-----|-----|----|-----|------|----|------|----------------|
| B17** | 58,0 | 0,1 | 0,2 | 0,2 | - | 0,2 | 0,03 | - | Rem. | ≤ 0.2 % |

* Deviations from these values may occur within the restrictions of the relevant standard specifications.

** ASBW / B17 complies with the restrictions to the chemical composition of the signed materials in the table, according to the specified in the 4 MS Common Composition List, on customer request.

FABRICATION PROPERTIES

FORMING

| | |
|-----------------------------------|------|
| Machinability (CuZn39Pb3 = 100 %) | 65 % |
| Cold Workability | Poor |
| Hot Workability | Good |

JOINING

| | |
|--|-----------------|
| Resistance Welding (Butt Welding) | Fair |
| Inert Gas Shielded Arc Welding | Fair |
| Gas Welding (Most Commonly Oxyacetylene) | Not Recommended |
| Hard Soldering | Good |
| Soft Soldering | Excellent |
| Brazing | Good |

POLISHING

| | |
|----------------|-----------|
| Mechanical | Good |
| Electrolytic | Poor |
| Electroplating | Excellent |

| Rods | | acc. to EN 12165 | | |
|--------|-----------|------------------|-----------------|------|
| Temper | Diameter | | Hardness HB | |
| | from [mm] | to [mm] | min. | max. |
| M | all | | As manufactured | |
| H090 | 8 | 120 | 70 | 110 |

FINISHING AND PACKAGING

| | |
|----------------|---|
| Bar ends | Marked according to customer's specification |
| Bar surface | Standard machining rods: bright, stripped surface Standard stamping rods: Dark and uniform surface |
| Packaging | <p>Size range up to 10 mm: The rods are packed loose in a wooden box and protected with oiled paper (net weight of approx. 500 kg). Each box is strapped with 4 steel straps to ensure material integrity during shipping.</p> <p>Size range > 10 mm: ASBW machining rods are supplied by standard in bundles either of approximately 1.000 kg or 500 kg. Different bundle weights are also possible upon customer's request. Each bundle is steel strapped three times on cardboard and both ends are protected with litter, to ensure the material integrity during the transportation</p> |
| Identification | <p>Adhesive label on bundle strap:</p> <ul style="list-style-type: none"> - customer - number of customer's order - EN Standard of the material - ASBW material code and LOT number ensuring production tracking - rod length - ASBW's PO number - ASBW's Quality Approval Seal |

The technical information within this datasheet is provided by ASBW without any surcharge.
The end use of this content is up to the user discretion and risk.
For further detailing on technical aspects such as material condition, machining, mechanical data, temper selection through contact to our technical personal.

ASBW

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