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Material Datasheet:
CuZn39Pb3

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MACHINING / HOT STAMPING BRASS RODS

CuZn39Pb3

Standard alloy for machining rods

CuZn39Pb3 is the benchmark material for machining, with a machinability index of 100 %. Therefore, it is the perfect material for applications where high-speed machining forming is required, ensuring maximum productivity and tool life on high speed repetition work. Furthermore, it also has excellent hot working properties, which makes it ideal for parts that need a posterior demanding machining.

MATERIAL DESIGNATION

ASBW	International	EN	UNS	JIS	Further Restrictions**
B14	CuZn39Pb3	CW614N	C38500	C3603 C3604	4 MS Common Approach, Part B

REFERENCE CHEMICAL COMPOSITION IN % (MAIN ELEMENTS) *

Material	Cu	Pb	Ni	Fe	As	Sn	Al	Bi	Zn	Other elements
B14**	58,0	3,0	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 / B14 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 %)	100%
Cold Workability	Poor
Hot Workability	Excellent

JOINING

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

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		
H080	8	80	80	125	

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: customer</p> <ul style="list-style-type: none"> - 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.



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