sarbak

TECHNICAL DATA SHEET

CW608N - CuZn38Pb2

S608

RODS / HOLLOW RODS

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CW608N - CuZn38Pb2

Product Code	EN Symbol	EN No	ASTM		Cu	Zn	Pb	Sn	Fe	Ni	Al	Others Total
S608	CuZn38Pb2	-	-	Min (%)	60,0	Rem.	1,6	-	-	-	-	-
				Max (%)	61,0	Rem.	2,5	0,2	0,2	0,3	0,05	0,2

Features And Applications

In addition to good machinability is an alloy that exhibits good cold working properties. Also this alloy compliance with RoHS II and REACH directives.

CW603N alloy is not suitable for 4MS vs UBA list for drinking water applications.

Area of Usage

Parts manufactured by cold forming.

TECHNICAL SPECIFICATIONS

Structure	α+β	**Hot Forming**	650-750 °C
Machinability	% 90	**Soft Annealing**	450-650 °C
Density	8,44 g/cm³	**Soft Annealing Time**	1-3 hours
Electrical Conductivity	14 MS/m, 24 %IACS	**Stress Relieving**	200-300 °C
Thermal Conductivity	109 W/(m·K)	**Stress Relieving Time**	1-3 hours
Elasticity Module	102 GPa		
Coeff. of Thermal Expansion	20,4 10^{-6}/K		
Melting Point	895-900 °C		

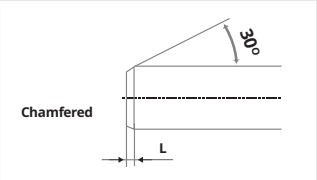
Range of Products

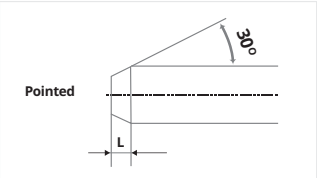
S608 alloy can be produced in our extrusion and cold drawing unit as rods, hollows and profiles suitable for both forging and machining. Please contact us for other technical informations.

INDICATIVE SHAPED ENDS DIMENSIONS

Nominal Diameter or Width		Type A – Chamfer Lenght(L)		Type B – Point Lenght(L)	
Across-flats (mm)		Min (mm)	Max (mm)	Min (mm)	Max (mm)
Over	Up to and including				
7 Inc.	10	0,2	1,5	2	7
10	20	0,2	2	3	10
20	30	0,2	3	4	12

Unless otherwise specified by the buyer, the shape of the ends of products larger than 30 mm is up to the supplier.





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Nominal Diameter or Width Across-flats (mm)		Preferred (available) Lengths (mm)	Tolerance on Length (mm)
Over	Up to and including		
7 Inc.	30	3.000 - 4.000	±50
30	65	3.000 - 4.000	±100

Stress Relieving The polygonal rods and hollow rods are subjected to stress relieving treatment

Packaging 500 or 1000 kg bundle – 3/5 metal straps different bundle packagings, up to 10 mm dimension products are packed with wooden case

EN 12164 - Rods for Free Machining

Material Condition	Nominal Diameter (mm)		Width Across-flats (mm)		Tensile Strength Rm N/mm² (MPa)	0,2 % Proof Strength N/mm² (MPa)		Elongation			Hardness (HBW)	
	Over	Up to and inc.	Over	Up to and inc.	Min	Min	Max	A_{100mm} (%) Min	$A_{11,3}$ (%) Min	A (%) Min	Min	Max
M	All		All		As manufactured							
R360	7	65	7	55	360	-	300	-	15	20	-	-
H070	7	65	7	55	-	-	-	-	-	-	70	100
R410	7	40	7	35	410	230	-	8	10	12	-	-
H100	7	40	7	35	-	-	-	-	-	-	100	145
R500	7	14	7	10	500	350	-	3	5	8	-	-
H120	7	14	7	10	-	-	-	-	-	-	120	-

EN 12168 - Hollow Rods for Free Machining

Material Condition	Wall Thickness (mm)		Tensile Strength Rm N/mm² (MPa)	0,2 % Proof Strength N/mm² (MPa)		Elongation A (%)	Hardness (HBW)		Hardness (HV)	
	Over	Up to and inc.	Min	Min	Max	Min	Min	Max	Min	Max
M	All		As manufactured							
R360	4	20	360	-	300	20	-	-	-	-
H070	4	20	-	-	-	-	70	100	80	110
R410	4	10	410	250	-	12	-	-	-	-
H100	4	10	-	-	-	-	100	145	110	155
R500	4	7	500	350	-	8	-	-	-	-
H120	4	7	-	-	-	-	120	-	130	-

EN 12165 - Wrought and Unwrought Forging Stocks

Material Condition	Nominal Diameter (mm)		Hardness (HBW)	
	Over	Up to and including	Min	Max
M	All		As manufactured	
H070	8	65	70	100

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STANDARD		EN 12164			EN 12165		EN 12168					
Dimension Range		Round Rod		Hexagonal, Square	Round Rod		Round and Hexagonal Hollow Rod, Outer Dim. Tol.			Hole Tolerance Round		Hole Tol. Hexagonal
Over	Up to & inc.	Class A	Class B	Rod	Class A	Class B	Class A	Class B	Class C	Class A	Class B	-
7	10	0 -0,06	0 -0,36	0 -0,09	±0,25	±0,14	-	-	-	-	-	-
10	13	0 -0,07	0 -0,043	0 -0,11	±0,25	±0,14	-	-	-	-	-	-
13	18	0 -0,07	0 -0,043	0 -0,11	±0,25	±0,14	-	-	-	±0,35	-	+0,70 -0
18	20	0 -0,08	0 -0,052	0 -0,13	±0,30	±0,17	-	-	-	±0,42	-	+0,84 -0
20	23	0 -0,08	0 -0,052	0 -0,13	±0,30	±0,17	-	-	-	±0,42	±0,17	+0,84 -0
23	26	0 -0,08	0 -0,052	0 -0,13	±0,30	±0,17	-	0 -0,21	-	±0,42	±0,17	+0,84 -0
26	30	0 -0,08	0 -0,052	0 -0,13	±0,30	±0,17	-	0 -0,21	0 -0,13	±0,42	±0,17	+0,84 -0
30	50	0 -0,16	-	0 -0,16	±0,60	±0,20	-	0 -0,25	0 -0,16	±0,80	±0,20	+1,6 -0
50	55	0 -0,19	-	0 -0,19	±0,70	±0,37	-	0 -0,46	0 -0,30	±0,95	±0,37	-
55	65	0 -0,19	-	-	±0,70	±0,37	±0,60	0 -0,46	0 -0,30	±0,95	-	-
65	80	-	-	-	±0,70	-	±0,60	0 -0,46	0 -0,30	±0,95	-	-
80	110	-	-	-	±2	-	-	-	-	-	-	-

For Hollow Rods
Minimum wall thickness is 4 mm. Eccentricity : % 8 (max.)

" For hollows, maximum outer diameter is 78 mm and maximum producible weight 28 kg in 1 meter."

Outer Cold Drawn - Internal Extruded
Outer Class B - Hole Class A tolerance

Inner-Outer Cold Drawn
Outer Class C - Hole Class B tolerance

Inner-Outer Extruded
Outer Class A - Hole Class A tolerance

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