

sarbak



## TECHNICAL DATA SHEET

CW727R - CuZn35Sn1P

S727

RODS / HOLLOW RODS

Product Code	EN Symbol	EN No	ASTM		Cu	Zn	Pb	Sn	Fe	Ni	Al	Mn	P	Si	Others Total
S727	CuZn35Sn1P	CW727R	-	Min (%)	63,5	Kalan	-	0,5	-	-	-	-	0,05	-	-
				Max (%)	65,0	Kalan	0,10	1,0	0,10	0,10	0,05	0,02	0,15	0,10	0,2

(\*) Each of the other elements < 0,02 %

## Features And Applications

Resistance to dezincification is provided with Tin and Phosphorus content. It has very good hot processing and sufficient machinability.

The material complies with ELV, RoHS II and REACH directives.

4MS and UBA material limitation group for CW727R-DW: B, C, D

## Area of Usage

It is used in applications such as fittings, forging parts and sanitary parts etc.

## Range of Products

Cold drawn and extruded bars, coils and hollow bars are produced in our extrusion and cold drawing department. Please enquire about suitable forms, dimensions and mechanical properties.

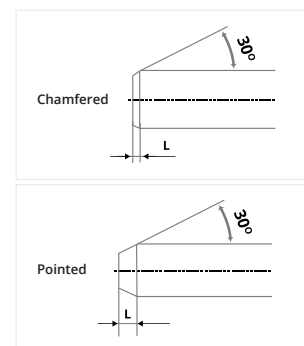
## TECHNICAL SPECIFICATIONS

Structure	$\alpha+\beta$	Melting Point	880-910 °C
Machinability	%65	Hot Forming	580-650 °C
Density	8,35 g/cm <sup>3</sup>	Soft Annealing	550-650 °C
Electrical Conductivity	26 %IACS	Soft Annealing Time	1-3 saat
Thermal Conductivity	122 W/(m.K)	Stress Relieving	200-300 °C
Elasticity Module	105 GPa	Stress Relieving Time	1-3 saat
Coeff. of Thermal Expansion	21,5 10 <sup>-6</sup> /K	Max. Depth of Dezincification	<100 µm

## INDICATIVE SHAPED ENDS DIMENSIONS

Nominal Diameter or Width		Type A - Chamfer Length (L)		Type B - Point Length (L)	
Over	Up to and including	Min (mm)	Max (mm)	Min (mm)	Max (mm)
-	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.





CW727R-CuZn35Sn1P

Nominal Diameter or Width Across-flats (mm)		Preferred (available) Lengths (mm)	Tolerance on Length (mm)
Over	Up to and including		
10 <sup>inc.</sup>	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/mm <sup>2</sup> (MPa)	0,2 % Proof Strength N/mm <sup>2</sup> (MPa)		Elongation			Hardness (HBW)	
	Over	Up to and inc	Over	Up to and inc		Min	Max	A100mm (%)	A11,3 (%)	A (%)	Max	Max
	As manufactured											
M	All		All									

**EN 12168 - Hollow Rods for Free Machining**

Material Condition	Wall Thickness (mm)	Tensile Strength Rm N/mm <sup>2</sup> (MPa)	0,2 % Proof Strength N/mm <sup>2</sup> (MPa)		Elongation A (%)	Hardness (HBW)		Hardness (HV)	
			Min	Max		Min	Max	Min	Max
	As manufactured								
M	All								

**EN 12165 - Wrought and Unwrought Forging Stocks**

Material Condition	Nominal Diameter (mm)		Hardness (HBW)	
	Over	Up to and inc	Min	Max
M	All		As manufactured	

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 A	Class B	-
8	10	0 -0,06	0 -0,036	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 -0,21	±0,42	-	+0,84 -0
23	26	0 -0,08	0 -0,052	0 -0,13	±0,30	±0,17	-	0 -0,21	±0,42	-	+0,84 -0
26	30	0 -0,08	0 -0,052	0 -0,13	±0,30	±0,17	-	0 -0,21	±0,42	-	+0,84 -0
30	50	0 -0,16	-	0 -0,16	±0,60	±0,20	-	0 -0,25	±0,80	-	+1,6 -0
50	55	0 -0,19	-	0 -0,19	±0,70	±0,37	-	0 -0,46	±0,95	-	-
55	65	0 -0,19	-	-	±0,70	±0,37	±0,60	0 -0,46	±0,95	-	-
65	80	-	-	-	±0,70	-	±0,60	0 -0,46	-	-	-
80	110	-	-	-	±2	-	-	-	-	-	-

### For Hollow Rods

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

Minimum wall thickness is 5 mm over 65 mm.

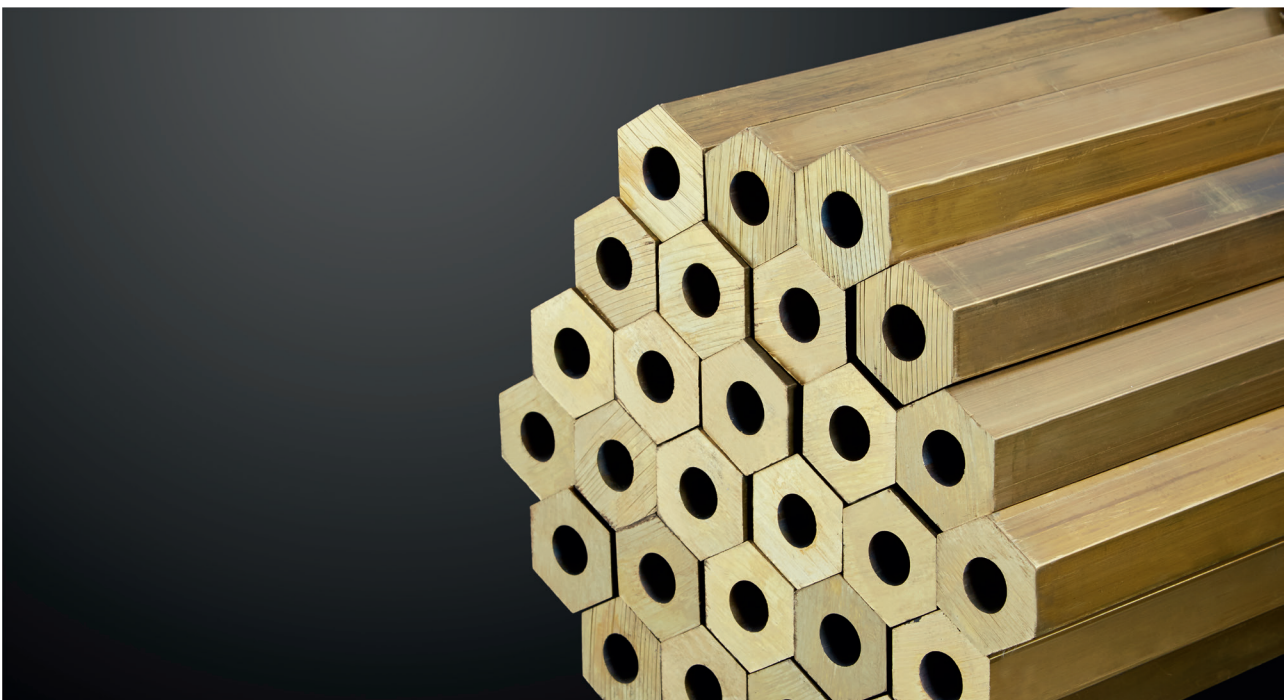
**"For hollows, maximum outer diameter is Ø78 mm and maximum producible weight is 28 kg in 1 meter."**

**Outer Cold Drawn - Internal Extruded**

Outer Class B - Hole Class A tolerance

**Inner-Outer Extruded**

Outer Class A - Hole Class A tolerance





#### Headquarter

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