

sarbak



# sarbak



## **SARBAK METAL TİC. ve SAN. A.Ş.**

Our company was founded in 1976 and operating in its new facilities in Çerkezköy Organized Industrial Site manufacturing all dimensions of brass extruded and cold drawing; round, square, rectangular, hexagonal, octagonal rods, hollow rods, cold drawn coils etc. as well as special profiles in various dimensions and shapes, billets in various dimensions and lengths and continuous casting ingots for free casting furnaces and low pressure casting furnaces that are widely used in water armatures manufacturing with 8.000tonnes/month manufacturing capacity in European and American standards in line with the demands of its customers.





## PRODUCT GROUPS



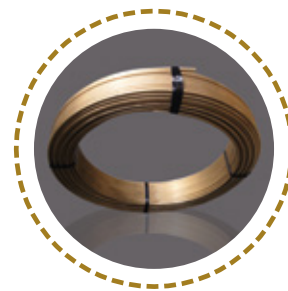
### **Rods and Profiles**

*Round, square, rectangular, hexagonal, octagonal profiles in all dimensions*



### **Hollow Rods and Profiles**

*For higher efficiency and low tool wear with less weight*



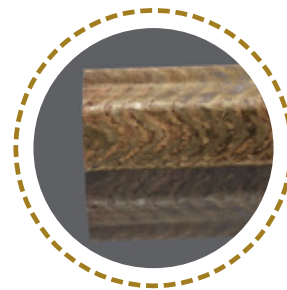
### **Cold Drawn Coils**

*Round, hexagonal, square, and rectangular brass coil manufacturing between 5-14 mm*



### **Brass Billet**

*Billet manufacturing in required dimensions and lengths up to 240 mm*






### **Ingot**

*Manufacturing of continuous casting ingots that are widely used in water armatures manufacturing*

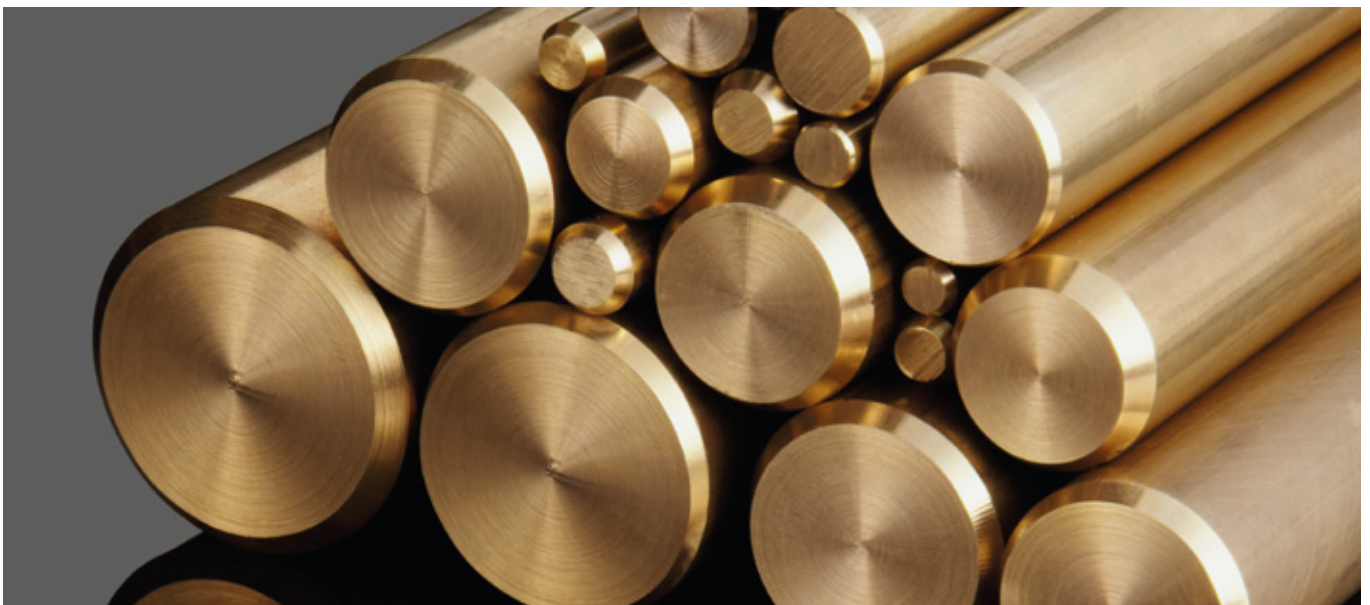


# Rods

*Round, square, rectangular, hexagonal, octagonal profile rods in all dimensions*


Description				Cold Drawn	Extruded		Polygonal Cold Drawn	Polygonal Extruded	
Standards				Diameter (mm)			Width Between Parallel Surfaces (mm)		
Product Code	EN Symbol	EN No	ASTM	Min	Max	Max	Min	Max	Max
S614	CuZn39Pb3	CW614N	C38500	6	80	140	6	55	100
S617	CuZn40Pb2	CW617N	C38000	6	80	140	6	55	100
S602	CuZn36Pb2As	CW602N	C35330	10	80	140	10	55	100
S608	CuZn38Pb2	CW608N	-	6	80	140	6	55	100
S612	CuZn39Pb2	CW612N	C37700	8	80	140	8	55	100
S603	CuZn36Pb3	CW603N	C36000	10	80	140	10	55	100
Ecobrass	CuZn21Si3P	CW724R	C69300	10	80	140	10	55	100
S509	 CuZn40	CW509L	C27450	6	80	140	6	55	100
S510	 CuZn42	CW510L	C28500	6	80	140	6	55	100
S511	 CuZn38As	CW511L	C27453	10	80	140	10	55	100
S625	CuZn35Pb1,5AlAs	CW625N	-	10	80	140	10	55	100
S626	CuZn33Pb1,5AlAs	CW626N	-	10	80	140	10	55	100
S709	CuZn32Pb2AsFeSi	CW709R	-	8	80	140	8	55	100
S713	CuZn37Mn3Al2PbSi	CW713R	C67420	8	80	140	8	55	100

*Sectional bars width across - flats over 55 mm and round bars diameter over 80 mm without straightening.*

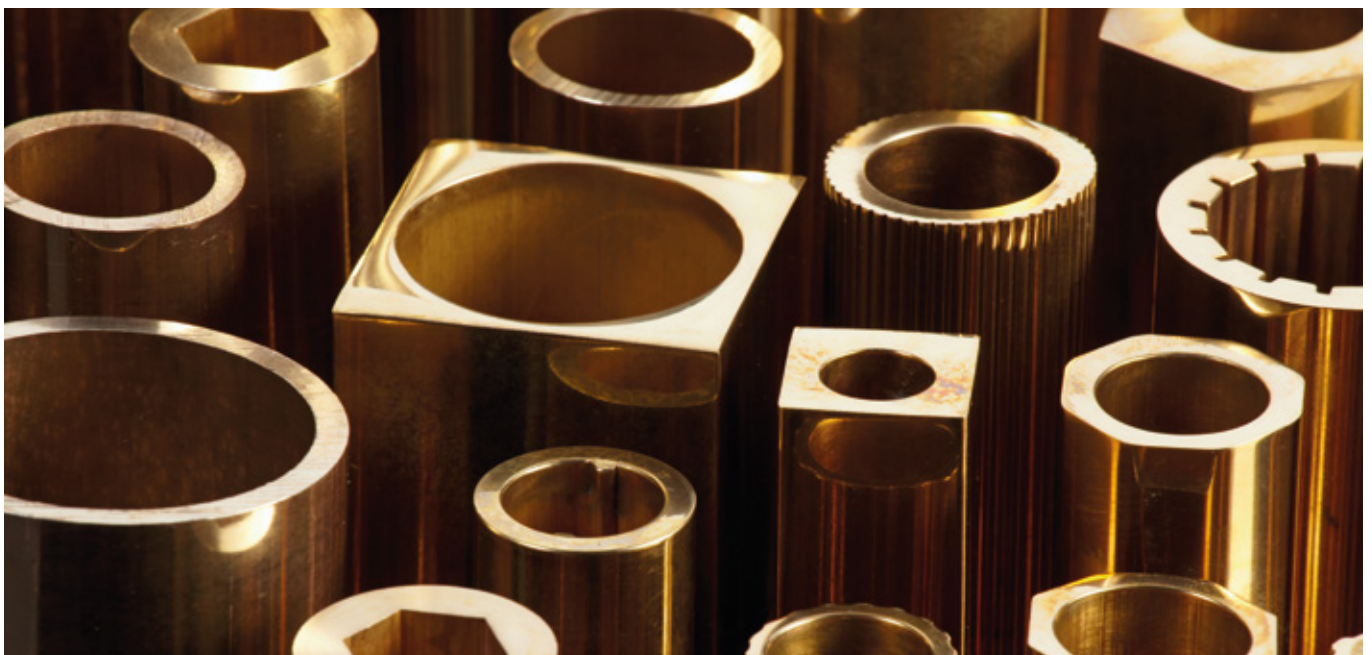


# Hollow Rods

*For higher efficiency and low tool wear with less weight*

Description				Cold Drawn	Extruded	Polygonal Cold Drawn	Polygonal Extruded	Round and Polygonal					
Standards				Outer Diameter (mm)			Width Between Parallel Surface (mm)			Bore Diameter (mm)		Wall Thickness (mm)	
Product Code	EN Symbol	EN No	ASTM	Min	Max	Max	Min	Max	Max	Min	Max	Min	Max
S614	CuZn39Pb3	CW614N	C38500	23	80	80	22	74	77	13	59	3	25
S617	CuZn40Pb2	CW617N	C38000	23	80	80	22	74	77	13	59	3	25
S602	CuZn36Pb2As	CW602N	C35330	23	80	80	22	74	77	13	59	4	25
S608	CuZn38Pb2	CW608N	-	23	80	80	22	74	77	13	59	4	25
S612	CuZn39Pb2	CW612N	C37700	23	80	80	22	74	77	13	59	4	25
S603	CuZn36Pb3	CW603N	C36000	23	80	80	22	74	77	13	59	4	25
Ecobrass	CuZn21Si3P	CW724R	C69300	23	80	80	22	74	77	13	59	4	25
S509	 CuZn40	CW509L	C27450	23	80	80	22	74	77	13	59	3	25
S510	CuZn42	CW510L	C28500	23	80	80	22	74	77	13	59	3	25
S511	CuZn38As	CW511L	C27453	23	80	80	22	74	77	13	59	4	25
S625	CuZn35Pb1,5AlAs	CW625N	-	23	80	80	22	74	77	13	59	4	25
S626	CuZn33Pb1,5AlAs	CW626N	-	23	80	80	22	74	77	13	59	4	25

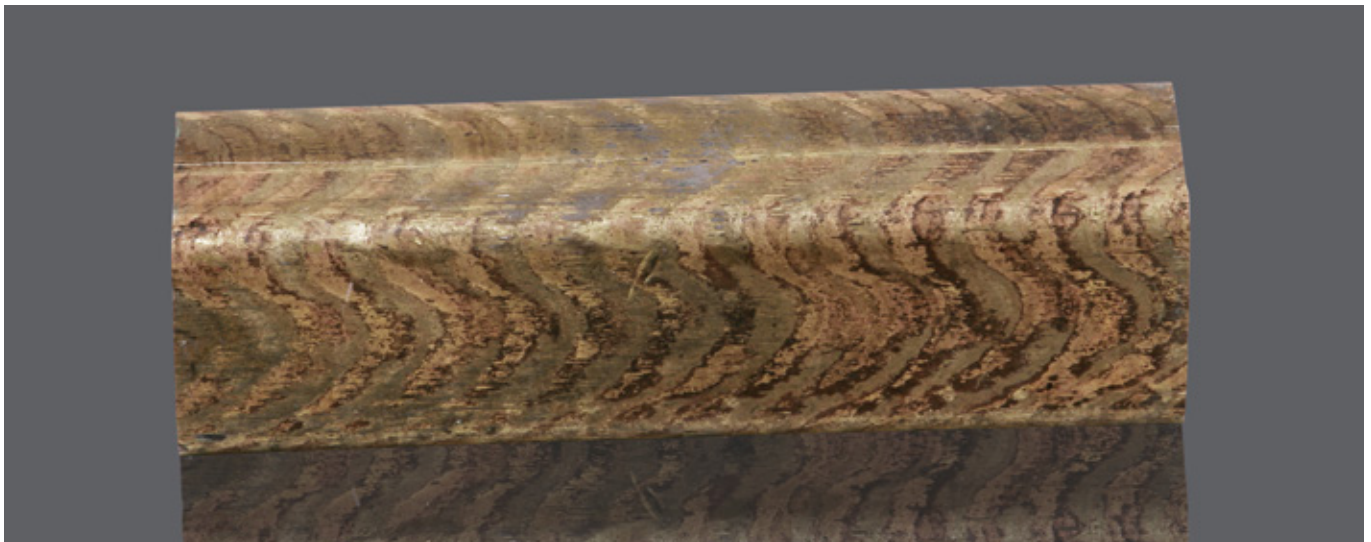
*Sectional bars width across - flats over 55 mm and round bars diameter over 80 mm without straightening.*



# Continuous Casting Ingots

*Manufacturing of continuous casting ingots that are widely used in water armatures manufacturing.*

Continuous Casting CuZn39Pb1Al - C Fitting Ingots CC757S	Continuous Casting CuZn39Pb1Al - C Low Pressure Ingots CC757S	Ecobrass - Ecocast Continuous Casting CuZn21Si3P Unleaded Ingots CC768S	Continuous Casting CuZn36Pb - C Dzr Ingots CC770S	Continuous Casting CuZn42Al Unleaded Ingots CC773S
EN - 1982	EN - 1982	EN - 1982	EN - 1982	EN - 1982
DIN 50930-6	DIN 50930-6	DIN 50930-6	DIN 50930-6	DIN 50930-6
UBA LIST	UBA LIST	UBA LIST	UBA LIST	UBA LIST
4MS	4MS	4MS	4MS	4MS
No Polishable	Polishable	Polishable	Polishable	Polishable



## General Features

- \* Ingots are transferred on Euro pallets between 1-2 tones. 64 mm x 64 mm x 380 mm, 12 - 13 kg / ingot.
- \* It can be loaded with the robot thanks to its geometry.
- \* Slag ratio is lower during melting compared to gravity die casting ingot as it is a continuous casting ingot.
- \* It is used in water armatures manufacturing.

## Applicable Standards

TS EN-1982	Standard for brass and copper alloys, ingots and casts.
DIN 50930-6	Standard for brass materials used areas contacting drinking water.
UBA List	The list for brass materials used in drinking water published by German Federal Environment Agency.
4MS	Committee regulating the national approvals for materials and products contacting drinking water that France, Germany, the Netherlands and United Kingdom are members of.

**Note :** Please contact us for other alloys you require.

# Cold Drawn Coils

Manufacturing in round, hexagonal, square and rectangular forms between 5-14 mm



Type	Manufacturing Range
Round	5-14 (mm)
Hexagonal, Square	5-12 (mm)
Rectangular	Thickness : 5-10 (mm) Width : 5-20 (mm)

Diameter (mm)	Weight (kg/m)	Max. Coil Weight (kg)	Material Condition
<b>EN 12166 - CW614N</b>			
4,80	0,153	140	R430-R500
5	0,166	140	
6	0,239	140	
7	0,325	140	
8	0,425	140	
9	0,538	140	
10	0,664	280	R430
11	0,803	280	
12	0,956	280	
13	1,122	280	
14	1,301	280	
Coil Internal Diameter		Ø 600 (mm)	
Coil Width		250 - 400 (mm)	
Coil Direction		Anticlockwise	

Dimension (mm)	Weight (kg/m)	Weight (kg/m)	Max. Coil Weight (kg)	Material Condition
<b>EN 12166 - CW614N</b>				
	<b>Hexagonal</b>	<b>Squar</b>		
5	0,183	0,211	140	R430-R500
6	0,263	0,304	140	
7	0,359	0,414	140	
8	0,468	0,541	140	
9	0,593	0,684	140	
10	0,732	0,845	140	
11	0,885	1,022	140	R430
12	1,054	1,217	280	
<b>Package Weight</b>		500 ± 100 (kg)		
<b>Package Dimensions</b>		Width x Length x Height 700 x 700 x 1300 (mm)		

\* Please contact us for rectangular profile weights and other alloys.

\* Round dimensions can be manufactured between 500-1000 kg as a welded monoblock coils depending on the request.

\* Please contact us for detailed information.



## Current Rectangular Dimensions

Dimension (mm)	~ Weight (kg/m)	Dimension (mm)	~ Weight (kg/m)	Dimension (mm)	~ Weight (kg/m)	Dimension (mm)	~ Weight (kg/m)
8 x 6	0,403	23 x 8	1,546	32 x 12	3,226	45 x 20	7,560
9 x 6,5	0,491	23 x 10	1,932	32 x 18	4,838	45 x 25	9,450
9,28 x 7,6	0,592	25 x 6	1,260	33 x 9	2,495	46 x 16	6,182
10 x 6	0,504	25 x 8	1,680	33,5 x 10	2,814	46 x 26	10,046
10 x 8	0,672	25 x 10	2,100	35 x 8	2,352	50 x 8	3,360
10,8 x 9,8	0,889	25 x 12	2,520	35 x 10	2,940	50 x 10	4,200
12 x 6,5	0,655	25 x 15	3,150	35 x 12	3,528	50 x 12	5,040
12 x 8	0,806	25 x 20	4,200	35R1 x 18R1	5,292	50 x 15	6,300
12 x 10	1,008	25,4 x 9,53	2,033	35 x 15	4,410	50 x 20	8,400
12,7 x 9,53	1,017	25,4 x 12,7	2,710	35 x 20	5,880	50 x 25	10,500
14 x 10	1,176	25,4 x 15,88	3,388	35 x 25	7,350	50 x 30	12,600
14 x 12,5	1,470	25,4 x 19,05	4,065	37 x 20	6,216	50 x 35	14,700
14,6 x 5,8	0,711	26 x 22	4,805	38 x 15,86	5,063	50 x 40	16,800
15 x 8	1,008	28 x 6	1,411	38,1 x 19,05	6,097	50,8 x 19,05	8,129
15 x 10	1,260	28,6 x 12,68	3,046	40 x 8	2,688	50,8 x 22,23	9,486
15 x 12	1,512	30 x 8	2,016	40 x 10	3,360	50,8 x 25,4	10,839
17 x 12	1,714	30 x 10	2,520	40 x 12	4,032	60 x 8	4,032
17,8 x 12,6	1,884	30 x 12	3,024	40 x 15	5,040	60 x 9	4,536
19 x 16	2,554	30 x 15	3,780	40 x 20	6,720	60 x 10	5,040
19,05 x 9,53	1,525	30 x 20	5,040	40 x 25	8,400	60 x 12	6,048
19,05 x 12,7	2,032	30 x 20,2	5,090	40 x 30	10,080	60 x 15	7,560
19,7 x 9,7	1,605	30 x 25	6,300	44,45 x 19,05	7,113	60 x 20	10,080
20 x 8	1,344	30 x 28	7,056	45 x 8	3,024	60 x 25	12,600
20 x 10	1,680	31,75 x 15,88	4,235	45 x 10	3,780	60 x 30	15,120
20 x 12	2,016	32 x 8	2,150	45 x 12	4,536	60 x 40	20,160
20 x 15	2,520	32 x 8,32	2,236	45 x 15	5,670	70 x 20	11,760





\* Dimensions are in mm.

## EN 12167 - Rectangular Material Dimensional Tolerance

Nominal Width		Width Tolerance	Thickness Tolerance in Thickness Gaps				
over..	up to.. (incl.)		5 to 6 incl. 6	over 6 up to 10 incl. 10	over 10 up to 18 incl. 18	over 18 up to 30 incl. 30	over 30 up to 50 incl. 50
6 incl.	18	±0,10	±0,07	±0,09	±0,10	-	-
18	30	±0,15	±0,07	±0,09	±0,10	±0,15	-
30	50	±0,20	±0,09	±0,10	±0,12	±0,15	±0,20
50	70	±0,25	±0,11	±0,12	±0,15	±0,20	±0,25

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	Incl.	Class A	Class B	Rod	Class A	Class B	Class A	Class B	Class C	Class A	Class B	-
5	6	0 -0,05	0 -0,03	0 -0,08	-	-	-	-	-	-	-	-
6	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	-	-	-	±0,42	±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 -0,19	-	-	±0,70	±0,37	±0,60	0 -0,46	0 -0,30	±0,95	-	-
80	120	-	-	-	±2	-	-	-	-	-	-	-
120	140	-	-	-	±2,5	-	-	-	-	-	-	-

### For Hollow Rods

Min. wall thickness manufacturing is 3-4 mm.  
Eccentricity : %10 (max.)

### Outer Cold Drawn - Internal Extruded

Outer Class B - Hole Class A tolerance

### Inner - Outer Cold Drawn

Outer Class C - Hole Class B tolerance

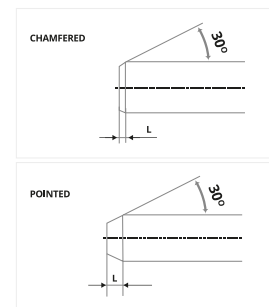
### Inner-Outer Extruded

Outer Class A - Hole Class A tolerance

## Indicative Shaped ends Dimensions

Nominal Diameter or width Across - Flats		Type A - Chamfer Length (L)		Type B - Dir. End Length (L)	
Over	Up to und including	Min	Max	Min	Max
5	10	0,2	1,5	2	7
10	20	0,2	2	3	10
20	30	0,2	3	4	12

- Unless customer states otherwise, manufacturer decides on the ends type over 30 mm.
- Sectional bars over 55 mm and rounds over 65 mm without chamfering.



Width Between Diameter or Parallel Surface	Rod Length Range	Tolerance
5	30	±50
30	80	±100

### Tension Release

Tension release thermal process is applied to all hollow and multi-corner solid materials that are subjected to cold drawing.


### Packaging

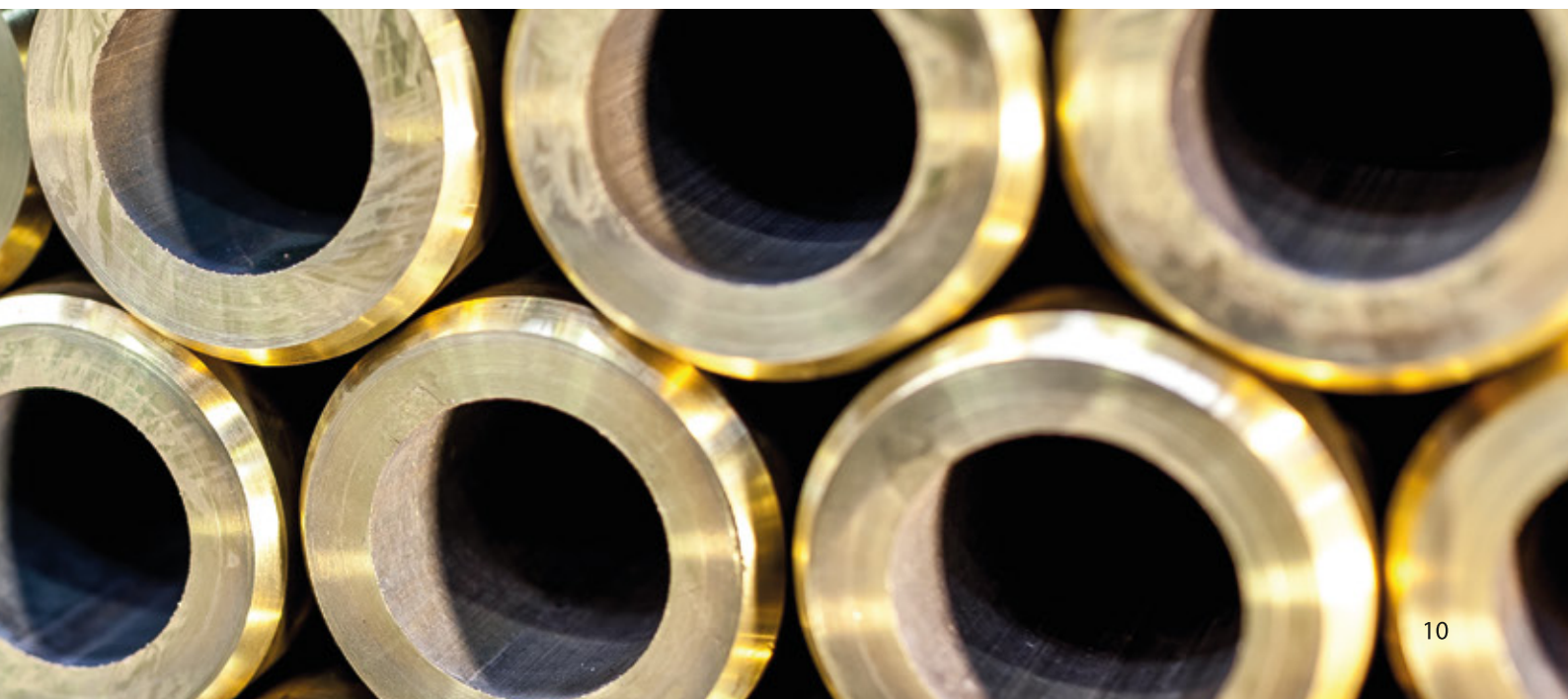
3/5 metal rings, surface stretch film, rods under 10 mm in wooden boxes, bundles of 500 and 1000 kg.

## Material Designation - Rod, Hollow Rod, Billet Chemical Composition % (in Mass)

Product Code	EN Symbol	EN No	ASTM	Element	Cu	Zn	Pb	Sn	Fe
Ecobrass	CuZn21Si3P	CW724R	C69300	Min (%) Max (%)	75,0 77,0	Rest	- 0,10	- 0,3	- 0,3
S509	CuZn40	CW509L	C27450	Min (%) Max (%)	59,0 61,5	Rest	- 0,2	- 0,2	- 0,2
S509DW	CuZn40	DW509L	C27450	Min (%) Max (%)	59,5 61,5	Rest	- 0,2	- 0,2	- 0,2
S510	CuZn42	CW510L	C28500	Min (%) Max (%)	57,0 59,0	Rest	- 0,2	- 0,3	- 0,3
S510DW	CuZn42	DW510L	C28500	Min (%) Max (%)	57,0 59,0	Rest	- 0,2	- 0,3	- 0,3
S511	CuZn38As	CW511L	C27453	Min (%) Max (%)	61,5 63,5	Rest	- 0,2	- 0,1	- 0,1
S511DW	CuZn38As	DW511L	C27453	Min (%) Max (%)	61,5 63,5	Rest	- 0,2	- 0,1	- 0,1
S603	CuZn36Pb3	CW603N	C36000	Min (%) Max (%)	60,0 62,0	Rest	2,5 3,5	- 0,2	- 0,3
S603DW	CuZn36Pb3	DW603N	C36000	Min (%) Max (%)	60,0 62,0	Rest	2,5 3,5	- 0,2	- 0,3
S614	CuZn39Pb3	CW614N	C38500	Min (%) Max (%)	57,0 59,0	Rest	2,5 3,5	- 0,3	- 0,3
S614DW	CuZn39Pb3	DW614N	C38500	Min (%) Max (%)	57,0 59,0	Rest	2,5 3,5	- 0,3	- 0,3
S617	CuZn40Pb2	CW617N	C38000	Min (%) Max (%)	57,0 59,0	Rest	1,6 2,5	- 0,3	- 0,3
S617DW	CuZn40Pb2	DW617N	C38000	Min (%) Max (%)	57,0 59,0	Rest	1,6 2,2	- 0,3	- 0,3
S602	CuZn36Pb2As	CW602N	C35330	Min (%) Max (%)	61,0 63,0	Rest	1,7 2,8	- 0,1	- 0,1
S625	CuZn35Pb1,5AlAs	CW625N	-	Min (%) Max (%)	62,0 64,0	Rest	1,2 1,6	- 0,3	- 0,3
S626	CuZn33Pb1,5AlAs	CW626N	-	Min (%) Max (%)	64,0 66,0	Rest	1,2 1,7	- 0,3	- 0,3
S608	CuZn38Pb2	CW608N	-	Min (%) Max (%)	60,0 61,0	Rest	1,6 2,5	- 0,2	- 0,2
S612	CuZn39Pb2	CW612N	C37700	Min (%) Max (%)	59,0 60,0	Rest	1,6 2,5	- 0,3	- 0,3
S612DW	CuZn39Pb2	DW612N	C37700	Min (%) Max (%)	59,0 60,0	Rest	1,6 2,2	- 0,3	- 0,3
S709	CuZn32Pb2AsFeSi	CW709R	-	Min (%) Max (%)	64,0 66,5	Rest	1,5 2,2	- 0,3	0,1 0,2
S713	CuZn37Mn3Al2PbSi	CW713R	C67420	Min (%) Max (%)	57,0 59,0	Rest	0,2 0,8	- 0,4	- 1,0



As	Ni	Al	Mn	P	Si	Others Total	Density (g/cm <sup>3</sup> )	DZR Feature		UBA 4 MS Group	Machinability Index (%)	
-	-	-	-	0,02	2,7	-	-	-	-	✓	✓	80
0,02	0,2	0,05	0,05	0,10	3,5	0,2	8,25	✓	✓	B,C	80	
-	-	-	-	-	-	-	-	-	-	-	-	50
-	0,3	0,05	-	-	-	0,2	8,4		✓	-	50	
-	-	-	-	-	-	-	-	-	-	✓	✓	50
0,02	0,2	0,05	0,02	0,02	0,02	0,2	8,4		✓	B,C	50	
-	-	-	-	-	-	-	-	-	-	-	-	70
-	0,3	0,05	-	-	-	0,2	8,4		✓	-	70	
-	-	-	-	-	-	-	-	-	-	✓	✓	70
0,02	0,2	0,05	0,02	0,02	0,02	0,2	8,4		✓	B,C	70	
0,02	-	-	-	-	-	-	-	-	-	-	-	40
0,15	0,3	0,05	-	-	-	0,2	8,4	✓	✓	-	40	
0,02	-	-	-	-	-	-	-	-	-	✓	✓	40
0,15	0,3	0,05	0,1	0,02	0,02	0,2	8,4	✓	✓	B,C	40	
-	-	-	-	-	-	-	-	-	-	-	-	90
-	0,3	0,05	-	-	-	0,2	8,5			-	90	
-	-	-	-	-	-	-	-	-	-	✓	✓	90
0,02	0,2	0,05	0,02	0,02	0,03	0,2	8,5			C	90	
-	-	-	-	-	-	-	-	-	-	-	-	100
-	0,3	0,05	-	-	-	0,2	8,4			-	100	
-	-	-	-	-	-	-	-	-	-	✓	✓	100
0,02	0,2	0,05	0,02	0,02	0,03	0,2	8,4			C	100	
-	-	-	-	-	-	-	-	-	-	-	-	95
-	0,3	0,05	-	-	0,03	0,2	8,4			-	95	
-	-	-	-	-	-	-	-	-	-	✓	✓	95
0,02	0,1	0,05	0,02	0,02	0,03	0,2	8,4			B,C	95	
0,02	-	-	-	-	-	-	-	-	-	-	-	80
0,15	0,3	0,05	0,1	-	-	0,2	8,4	✓		-	80	
0,02	-	0,50	-	-	-	-	-	-	-	✓	✓	80
0,15	0,2	0,70	0,1	0,02	0,02	0,2	8,4	✓		B,C	80	
0,02	-	0,80	-	-	-	-	-	-	-	✓	✓	70
0,15	0,2	1,00	0,1	0,02	0,02	0,2	8,4	✓		B,C	70	
-	-	-	-	-	-	-	-	-	-	-	-	90
-	0,3	0,05	-	-	-	0,2	8,4			-	90	
-	-	-	-	-	-	-	-	-	-	-	-	90
-	0,3	0,05	-	-	-	0,2	8,4			-	90	
-	-	-	-	-	-	-	-	-	-	✓	✓	90
0,02	0,1	0,05	0,02	0,02	0,03	0,2	8,4			B,C	90	
0,03	-	-	-	-	0,45	-	-	-	-	-	-	85
0,08	0,3	0,05	-	-	0,8	0,2	8,4	✓		-	85	
-	-	1,30	1,5	-	0,3	-	-	-	-	-	-	50
-	1,0	2,30	3,0	-	1,3	0,3	8,1			-	50	



sarbak

#### Headquarter

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