

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



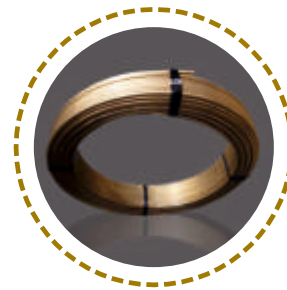
### **Rods and Profiles**

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



### **Hollow Rods and Profiles**

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



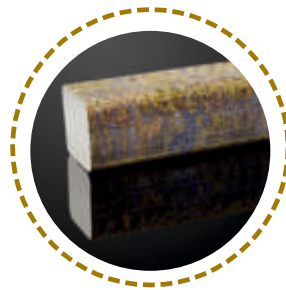
### **Cold Drawn Coils**

*Round, hexagonal, square, and rectangular brass coil manufacturing between 7-14 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	Hexagon Max	Square Max
S614	CuZn39Pb3	CW614N	C38500	7	65	110	7	55	95	78
S617	CuZn40Pb2	CW617N	C38000	7	65	110	7	55	95	78
S602	CuZn36Pb2As	CW602N	C35330	10	65	110	10	55	95	78
S608	CuZn38Pb2	CW608N	-	7	65	110	7	55	95	78
S612	CuZn39Pb2	CW612N	C37700	7	65	110	8	55	95	78
S603	CuZn36Pb3	CW603N	C36000	10	65	110	10	55	95	78
Ecobrass	CuZn21Si3P	CW724R	C69300	10	65	90	10	55	-	-
S509	 CuZn40	CW509L	C27450	7	65	110	7	55	95	78
S510	CuZn42	CW510L	C28500	7	65	110	7	55	95	78
S511	CuZn38As	CW511L	C27453	10	65	110	10	55	95	78
S625	CuZn35Pb1,5AlAs	CW625N	-	10	65	110	10	55	95	78
S626	CuZn33Pb1,5AlAs	CW626N	-	10	65	110	10	55	95	78
S709	CuZn32Pb2AsFeSi	CW709R	-	8	65	110	8	55	95	78
S713	CuZn37Mn3Al2PbSi	CW713R	C67420	8	65	110	8	55	95	78

*Sectional bars width across - flats over 55 mm and round bars diameter over 65 mm without straightening.*



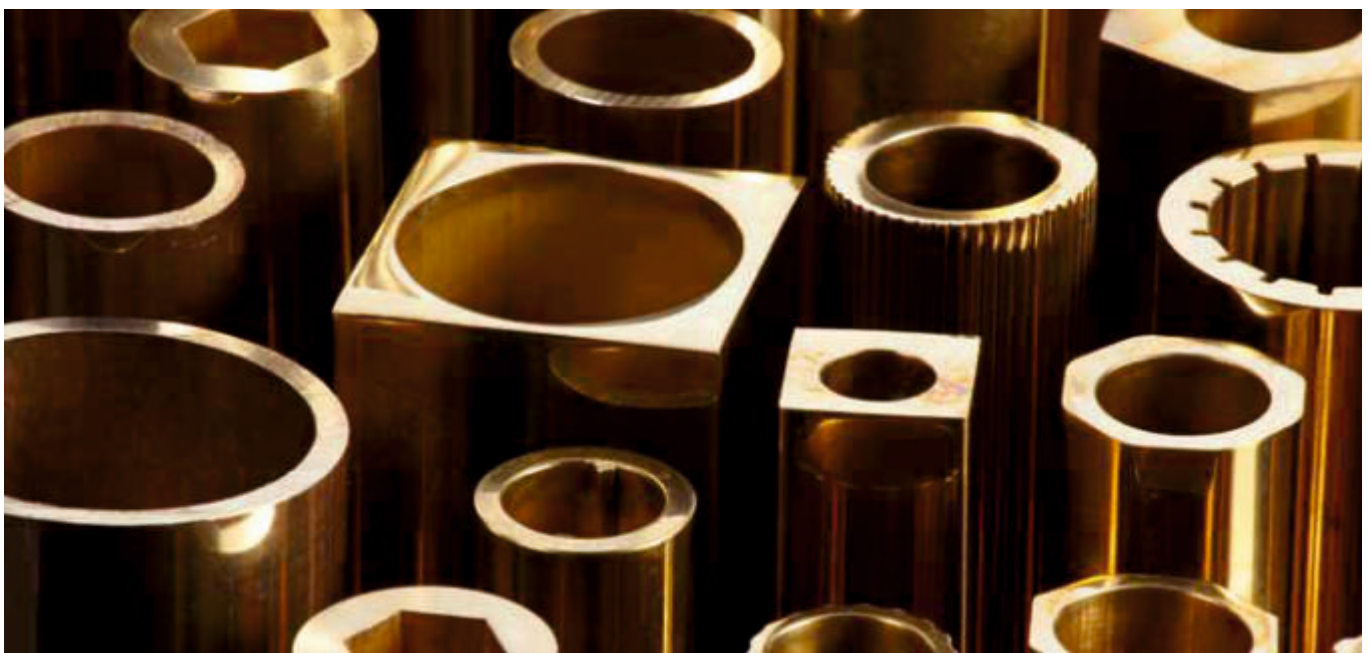
# Hollow Rods

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

Designation				Cold Drawn			Extruded			Cold Draw Hexagon			Extruded Hexagon			Cold Draw Octagon			Extruded Octagon			Round and Polygons			
Standards				External Diameter (mm)			Width Across-flats (mm)			Width Across-flats (mm)			Internal Diameter (mm)		Wall Thickness (mm)										
Product Code	EN Symbol	EN No	ASTM	Min	Max	Max	Min	Max	Max	Min	Max	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max			
S614	CuZn39Pb3	CW614N	C38500	23	78	80	22	65	77	23	60	75	13	59	3	25									
S617	CuZn40Pb2	CW617N	C38000	23	78	80	22	65	77	23	60	75	13	59	3	25									
S602	CuZn36Pb2As	CW602N	C35330	23	78	80	22	65	77	23	60	75	13	59	4	25									
S608	CuZn38Pb2	CW608N	-	23	78	80	22	65	77	23	60	75	13	59	4	25									
S612	CuZn39Pb2	CW612N	C37700	23	78	80	22	65	77	23	60	75	13	59	3	25									
S603	CuZn36Pb3	CW603N	C36000	23	78	80	22	65	77	23	60	75	13	59	4	25									
Ecobrass	CuZn21Si3P	CW724R	C69300	23	78	80	22	65	77	23	60	75	13	59	4	25									
S509	 CuZn40	CW509L	C27450	23	78	80	22	65	77	23	60	75	13	59	3	25									
S510	 CuZn42	CW510L	C28500	23	78	80	22	65	77	23	60	75	13	59	3	25									
S511	CuZn38As	CW511L	C27453	23	78	80	22	65	77	23	60	75	13	59	4	25									
S625	CuZn35Pb1,5AlAs	CW625N	-	23	78	80	22	65	77	23	60	75	13	59	4	25									
S626	CuZn33Pb1,5AlAs	CW626N	-	23	78	80	22	65	77	23	60	75	13	59	4	25									

Minimum wall thickness 5 mm over 65 mm

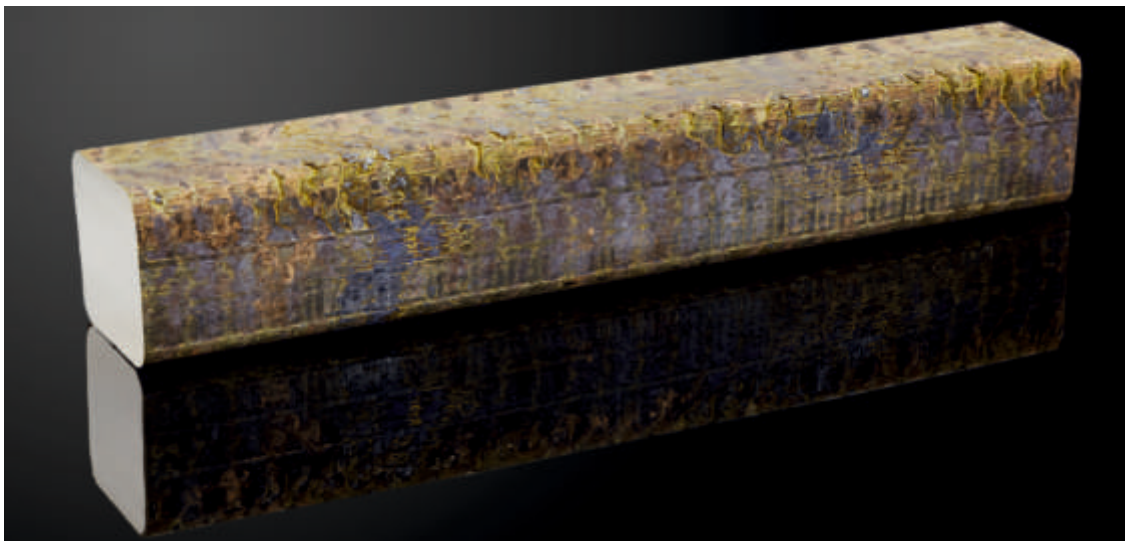
*Max weight is 28 kg per 1 meter for hollow rods.*



# 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	Ecobross - 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.

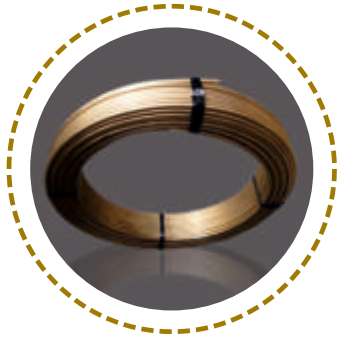
## Applicable Standards

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 7-14 mm*



Type	Manufacturing Range
Round	7-14 (mm)
Hexagonal, Square	7-12 (mm)
Rectangular	Thickness : 7-10 (mm) Width : 7-20 (mm)

Diameter (mm)	Weight (kg/m)	Max. Coil Weight (kg)	Material Condition
<b>EN 12166 - CW614N</b>			
7	0,325	140	R430
8	0,425	140	
9	0,538	140	
10	0,664	280	
11	0,803	280	
12	0,956	280	
13	1,122	280	
14	1,301	280	

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>		
7	0,359	0,414	140	R430
8	0,468	0,541	140	
9	0,593	0,684	140	
10	0,732	0,845	140	
11	0,885	1,022	140	
12	1,054	1,217	280	

Coil Internal Diameter	Ø 600 (mm)
Coil Width	250 - 400 (mm)
Coil Direction	Anticlockwise

<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	0,40	23 x 8	1,55	35 x 10	2,94	46 x 26	10,05
9X6	0,46	23 x 10	1,93	35 x 12	3,53	48 X 42	17,04
9 x 6,5	0,49	25 x 8	1,68	35R1 X 18R1	5,29	50 x 8	3,36
9,28 x 7,6	0,59	25 x 10	2,10	35 x 15	4,41	50 x 10	4,20
10 x 6	0,50	25 x 12	2,52	35 x 20	5,88	50 x 12	5,04
10 x 8	0,67	25 x 15	3,15	35 x 25	7,35	50 x 15	6,30
10,8 x 9,8	0,89	25 x 20	4,20	35 X 30	8,87	50 x 20	8,40
12 x 8	0,81	25,4 x 9,53	2,03	37 x 20	6,22	50 x 25	10,50
12 x 10	1,01	25,4 x 12,7	2,71	38 x 15,86	5,06	50 x 30	12,60
12,7 x 9,53	1,02	25,4 x 15,88	3,39	38,1 x 9,53	3,07	50 x 35	14,70
14 x 10	1,18	25,4 x 19,05	4,07	38,1 x 12,7	4,09	50 x 40	16,80
14 x 12,5	1,47	26 x 22	4,81	38,1 x 19,05	6,10	50,8 x 9,53	4,09
15 x 8	1,01	28,6 x 12,68	3,05	40 x 8	2,69	50,8 x 15,88	6,82
15 x 10	1,26	30 x 8	2,02	40 x 10	3,36	50,8 x 19,05	8,13
15 x 12	1,51	30 x 10	2,52	40 x 12	4,03	50,8 x 22,23	9,49
15,88 X 9,53	1,27	30 x 12	3,02	40 x 15	5,04	50,8 x 25,4	10,84
16 X 8	1,08	30 x 15	3,78	40 x 20	6,72	55 x 10,5	4,88
16 X 10	1,35	30 x 20	5,04	40 x 25	8,40	56 X 33	15,62
16 X 15	2,03	30 x 20,2	5,09	40 x 30	10,08	60 x 8	4,03
17 x 12	1,71	30 x 25	6,30	40 X 35	11,83	60 x 9	4,54
17,8 x 12,6	1,88	30 x 28	7,06	44,45 x 19,05	7,11	60 x 10	5,04
18 X 10	1,52	31,75 x 9,53	4,26	45 x 8	3,02	60 x 12	6,05
19 x 16	2,55	31,75 x 15,88	4,24	45 x 10	3,78	60 x 15	7,56
19,05 x 9,53	1,53	32 x 8	2,15	45 x 12	4,54	60 x 20	10,08
19,05 x 12,7	2,03	32 x 8,32	2,24	45 x 15	5,67	60 x 25	12,60
19,7 x 9,7	1,61	32 x 12	3,23	45 x 20	7,56	60 x 30	15,12
20 x 8	1,34	32 x 18	4,84	45 x 25	9,45	60 x 40	20,16
20 x 10	1,68	33 x 9	2,50	45 X 30	11,41	70 x 20	11,76
20 x 12	2,02	33,5 x 10	2,81	45 X 35	13,31		
20 x 15	2,52	35 x 8	2,35	46 x 16	6,18		





## 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	-
7	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	-	-	-	±0,70	-	±0,60	0 -0,46	0 -0,30	±0,95	-	-
80	110	-	-	-	±2	-	-	-	-	-	-	-

**For Hollow Rods**

Min. wall thickness manufacturing is 3-4 mm.  
Eccentricity : % 8 (max.)

**Outer Cold Drawn - Internal Extruded**

Outer Class B - Hole Class A tolerance

**Inner - Outer Cold Drawn**

Outer Class C - Hole Class B tolerance

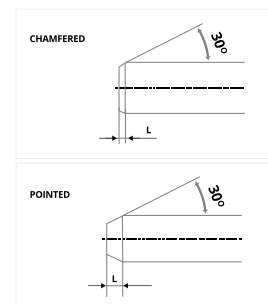
**Inner-Outer Extruded**

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
7	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	
7	30	3.000 - 4.000	±50
30	65	3.000 - 4.000	±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, bundless 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 (%)	75,0	Kalan	-	-	-
				Max (%)	77,0		0,10	0,3	0,3
S509	CuZn40	CW509L	C27450	Min (%)	59,0	Kalan	-	-	-
				Max (%)	61,5		0,2	0,2	0,2
S509DW	CuZn40	CW509L-DW	C27450	Min (%)	59,5	Kalan	-	-	-
				Max (%)	61,5		0,2	0,2	0,2
S510	CuZn42	CW510L	C28500	Min (%)	57,0	Kalan	-	-	-
				Max (%)	59,0		0,2	0,3	0,3
S510DW	CuZn42	CW510L-DW	C28500	Min (%)	57,0	Kalan	-	-	-
				Max (%)	59,0		0,2	0,3	0,3
S511	CuZn38As	CW511L	C27453	Min (%)	61,5	Kalan	-	-	-
				Max (%)	63,5		0,2	0,1	0,1
S511DW	CuZn38As	CW511L-DW	C27453	Min (%)	61,5	Kalan	-	-	-
				Max (%)	63,5		0,2	0,1	0,1
S603	CuZn36Pb3	CW603N	C36000	Min (%)	60,0	Kalan	2,5	-	-
				Max (%)	62,0		3,5	0,2	0,3
S603DW	CuZn36Pb3	CW603N-DW	C36000	Min (%)	60,0	Kalan	2,5	-	-
				Max (%)	62,0		3,5	0,2	0,3
S614	CuZn39Pb3	CW614N	C38500	Min (%)	57,0	Kalan	2,5	-	-
				Max (%)	59,0		3,5	0,3	0,3
S614DW	CuZn39Pb3	CW614N-DW	C38500	Min (%)	57,0	Kalan	2,5	-	-
				Max (%)	59,0		3,5	0,3	0,3
S617	CuZn40Pb2	CW617N	C38000	Min (%)	57,0	Kalan	1,6	-	-
				Max (%)	59,0		2,5	0,3	0,3
S617DW	CuZn40Pb2	CW617N-DW	C38000	Min (%)	57,0	Kalan	1,6	-	-
				Max (%)	59,0		2,2	0,3	0,3
S602	CuZn36Pb2As	CW602N	C35330	Min (%)	61,0	Kalan	1,7	-	-
				Max (%)	63,0		2,8	0,1	0,1
S625	CuZn35Pb1,5AlAs	CW625N	-	Min (%)	62,0	Kalan	1,2	-	-
				Max (%)	64,0		1,6	0,3	0,3
S626	CuZn33Pb1,5AlAs	CW626N	-	Min (%)	64,0	Kalan	1,2	-	-
				Max (%)	66,0		1,7	0,3	0,3
S608	CuZn38Pb2	CW608N	-	Min (%)	60,0	Kalan	1,6	-	-
				Max (%)	61,0		2,5	0,2	0,2
S612	CuZn39Pb2	CW612N-DW	C37700	Min (%)	59,0	Kalan	1,6	-	-
				Max (%)	60,0		2,5	0,3	0,3
S612DW	CuZn39Pb2	CW713R	C37700	Min (%)	59,0	Kalan	1,6	-	-
				Max (%)	60,0		2,2	0,3	0,3
S709	CuZn32Pb2AsFeSi	CW709R	-	Min (%)	64,0	Kalan	1,5	-	0,1
				Max (%)	66,5		2,2	0,3	0,2
S713	CuZn37Mn3Al2PbSi	CW713R	C67420	Min (%)	57,0	Kalan	0,2	-	-
				Max (%)	59,0		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	-	-	-	-	-	-
0,02	0,2	0,05	0,05	0,10	3,5	0,2	8,25	✓	✓	✓ B,C	80
-	-	-	-	-	-	-	-	-	-	-	-
-	0,3	0,05	-	-	-	0,2	8,4	-	✓	-	50
-	-	-	-	-	-	-	-	-	-	✓	-
0,02	0,2	0,05	0,02	0,02	0,02	0,2	8,4	-	✓	✓ B,C	50
-	-	-	-	-	-	-	-	-	-	-	-
-	0,3	0,05	-	-	-	0,2	8,4	-	✓	-	70
-	-	-	-	-	-	-	-	-	-	✓	-
0,02	0,2	0,05	0,02	0,02	0,02	0,2	8,4	-	✓	✓ B,C	70
0,02	-	-	-	-	-	-	-	-	-	-	-
0,15	0,3	0,05	-	-	-	0,2	8,4	✓	✓	-	40
0,02	-	-	-	-	-	-	-	-	-	✓	-
0,15	0,3	0,05	0,1	0,02	0,02	0,2	8,4	✓	✓	✓ B,C	40
-	-	-	-	-	-	-	-	-	-	-	-
-	0,3	0,05	-	-	-	0,2	8,5	-	-	-	90
-	-	-	-	-	-	-	-	-	-	✓	-
0,02	0,2	0,05	0,02	0,02	0,03	0,2	8,5	-	-	C	90
-	-	-	-	-	-	-	-	-	-	-	-
-	0,3	0,05	-	-	-	0,2	8,4	-	-	-	100
-	-	-	-	-	-	-	-	-	-	✓	-
0,02	0,2	0,05	0,02	0,02	0,03	0,2	8,4	-	-	C	100
-	-	-	-	-	-	-	-	-	-	-	-
-	0,3	0,05	-	-	0,03	0,2	8,4	-	-	-	95
-	-	-	-	-	-	-	-	-	-	✓	-
0,02	0,1	0,05	0,02	0,02	0,03	0,2	8,4	-	-	✓ B,C	95
0,02	-	-	-	-	-	-	-	-	-	-	-
0,15	0,3	0,05	0,1	-	-	0,2	8,4	✓	-	-	80
0,02	-	0,50	-	-	-	-	-	-	-	✓	-
0,15	0,2	0,70	0,1	0,02	0,02	0,2	8,4	✓	-	✓ B,C	80
0,02	-	0,80	-	-	-	-	-	-	-	✓	-
0,15	0,2	1,00	0,1	0,02	0,02	0,2	8,4	✓	-	✓ B,C	70
-	-	-	-	-	-	-	-	-	-	-	-
-	0,3	0,05	-	-	-	0,2	8,4	-	-	-	90
-	-	-	-	-	-	-	-	-	-	-	-
-	0,3	0,05	-	-	-	0,2	8,4	-	-	-	90
-	-	-	-	-	-	-	-	-	-	✓	-
0,02	0,1	0,05	0,02	0,02	0,03	0,2	8,4	-	-	✓ B,C	90
0,03	-	-	-	-	0,45	-	-	-	-	-	-
0,08	0,3	0,05	-	-	0,8	0,2	8,4	✓	-	-	85
-	-	1,30	1,5	-	0,3	-	-	-	-	-	-
-	1,0	2,30	3,0	-	1,3	0,3	8,1	-	-	-	50





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