



KIGEMA

Centrifugal casting
and mechanical machining company

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BRONZE / LEADED BRONZE

BRONZE /
LEADED BRONZE

● ROUND BARS

ROUND BARS ●

Delivery Size Ø mm	Finished Size Ø mm	Weight kg/m	CuSn7Zn4Pb7 CC493K-GC	CuSn12 CC483K-GC	CuSn7Pb15 CC496K-GC
13	12	1.3	•	•	
16	15	1.9	•	•	•
19	18	2.6	•	•	•
21	20	3.2	•	•	•
23	22	3.8	•	•	•
26	24	4.8	•	•	•
32	30	6.8	•	•	•
37	35	9.7	•	•	•
42	40	12.4	•	•	•
47	45	15.5	•	•	•
52	50	19.0	•	•	•
57	55	22.7	•	•	•
62	60	26.9	•	•	•
67	65	31.4	•	•	•
72	70	36.2	•	•	•
77	75	41.3	•	•	•
82	80	46.9	•	•	•
87	85	52.7	•	•	•
92	90	58.9	•	•	•
97	95	65.5	•	•	•
102	100	72.4	•	•	•
107	105	79.6	•	•	•
112	110	87.2	•	•	•
117	115	95.1	•	•	•
122	120	103.4	•	•	•
127	125	112.1	•	•	•
132	130	121.0	•	•	•
142	140	140.0	•	•	•
152	150	160.4	•	•	•
162	160	182.1	•	•	•
172	170	205.2	•	•	•
187	180	242.5	•	•	•
197	190	269.1	•	•	•
207	200	297.1	•	•	•
222	215	341.6	•	•	•
232	225	373.0	•	•	•
257	250	457.6	•	•	•
272	265	512.5	•	•	•
307	300	652.7	•	•	•
327	320	740.4	•	•	•
357	350	882.4	•	•	•

Delivery Size Ø mm	Finished Size Ø mm	Weight kg/m	CuSn7Zn4Pb7 CC493K-GC	CuSn12 CC483K-GC	CuSn7Pb15 CC496K-GC
377	370	983.9	•	•	•
407	400	1,146.6	•	•	•
457	450	1,445.4	•	•	•
468	460	1,515.8	•	•	•
520	510	1,871.1	•	•	•

In manufacturing lengths of around 3,000 mm. The specified delivery dimensions are sufficient for corresponding finished dimensions with a piece length of 250 mm. The weights stated in the table are theoretically calculated with a density of 8.8 g/cm³ and without obligation.

BRONZE /
LEADED BRONZE

SQUARE BARS

Delivery Size mm	Finished Size mm	Weight kg/m	CuSn7Zn4Pb7-C-GC CC493K-GC	CuSn12-C-GC CC483K-GC
22 x 22	20 x 20	4.3	•	•
32 x 32	30 x 30	9.1	•	•
42 x 42	40 x 40	15.6	•	•
52 x 52	50 x 50	23.8	•	•
62 x 62	60 x 60	33.9	•	•
72 x 72	70 x 70	45.7	•	•
82 x 82	80 x 80	59.2	•	•
92 x 92	90 x 90	74.5	•	•
102 x 102	100 x 100	91.6	•	•
112 x 112	110 x 110	110.4	•	•
124 x 124	120 x 120	135.4	•	•
143 x 143	140 x 140	180.0	•	•
153 x 153	150 x 150	206.0	•	•
203 x 203	200 x 200	362.7	•	•
262 x 262	255 x 255	604.1	•	•
315 x 315	305 x 305	873.2	•	•

In manufacturing lengths of around 3,000 mm. The specified delivery dimensions are sufficient for corresponding finished dimensions with a piece length of 250 mm. The weights stated in the table are theoretically calculated with a density of 8.8 g/cm³ and without obligation.

FLAT BARS

FLAT BARS

Delivery Size mm	Finished Size mm	Weight kg/m	CuSn7Zn4Pb7 CC493K-GC	CuSn12 CC483K-GC
22 x 13	20 x 10	2.6	•	•
17	15	3.3	•	•
32 x 13	30 x 10	3.7	•	•
17	15	4.8	•	•
23	20	6.5	•	•
42 x 13	40 x 10	4.9	•	•
17	15	6.3	•	•
23	20	8.6	•	•
33	30	12.2	•	•
47 x 32	45 x 30	13.3	•	•
52 x 13	50 x 10	6.0	•	•
19	16	8.7	•	•
23	20	10.6	•	•
27	25	12.4	•	•
33	30	15.2	•	•
37	35	17.0	•	•
43	40	19.7	•	•
62 x 13	60 x 10	7.1	•	•
19	16	10.4	•	•
23	20	12.6	•	•
27	25	14.8	•	•
33	30	18.1	•	•
42	40	23.0	•	•
67 x 19	65 x 16	11.3	•	•
23	20	13.6	•	•
27	25	16.0	•	•
32	30	18.9	•	•
73 x 13	70 x 10	8.4	•	•
19	16	12.3	•	•
23	20	14.8	•	•
43	40	27.7	•	•
83 x 13	80 x 10	9.5	•	•
19	16	13.9	•	•
23	20	16.8	•	•
37	35	27.1	•	•
43	40	31.5	•	•
52	50	38.0	•	•
103 x 13	100 x 10	11.8	•	•
15	12	13.6	•	•
19	16	17.3	•	•
23	20	20.9	•	•

Delivery Size mm	Finished Size mm	Weight kg/m	CuSn7Zn4Pb7 CC493K-GC	CuSn12 CC483K-GC
103 x 27	100 x 25	24.5	•	•
33	30	30.0	•	•
43	40	39.0	•	•
52	50	47.2	•	•
73	70	66.2	•	•
122 x 62	120 x 60	66.6	•	•
123 x 19	120 x 16	20.6	•	•
23	20	24.9	•	•
32	30	34.7	•	•
45	42	48.8	•	•
133 x 32	130 x 30	37.5	•	•
43	40	50.4	•	•
52	50	60.9	•	•
143 x 13	140 x 10	16.4	•	•
15	12	18.9	•	•
19	16	24.0	•	•
23	20	29.0	•	•
27	25	34.0	•	•
153 x 23	150 x 20	31.0	•	•
32	30	43.1	•	•
52	50	70.1	•	•
65	62	87.6	•	•
163 x 19	160 x 16	27.3	•	•
23	20	33.0	•	•
27	25	38.8	•	•
38	35	54.6	•	•
43	40	61.7	•	•
173 x 153	170 x 150	233.0	•	•
183 x 19	180 x 16	30.6	•	•
23	20	37.1	•	•
63	60	101.5	•	•
203 x 19	200 x 16	34.0	•	•
23	20	41.1	•	•
223 x 27	220 x 25	53.0	•	•
227 x 43	225 x 40	85.9	•	•
232 x 13	230 x 10	26.6	•	•
243 x 73	240 x 70	156.2	•	•
263 x 23	260 x 20	53.3	•	•
33	30	76.4	•	•
63	60	145.9	•	•
315 x 12	312 x 09	33.3	•	•

Delivery Size mm	Finished Size mm	Weight kg/m	CuSn7Zn4Pb7 CC493K-GC	CuSn12 CC483K-GC
315 x 17	312 x 15	47.2	•	•
22	20	61.0	•	•
27	25	74.9	•	•
32	30	88.8	•	•

Delivery Size mm	Finished Size mm	Weight kg/m	CuSn7Zn4Pb7 CC493K-GC	CuSn12 CC483K-GC
315 x 42	312 x 40	116.5	•	•
52	50	144.2	•	•
102	100	282.8	•	•
520 x 260	510 x 250	1,189.8	•	•

In manufacturing lengths of around 3,000 mm. The specified delivery dimensions are sufficient for corresponding finished dimensions with a piece length of 250 mm. The weights stated in the table are theoretically calculated with a density of 8.8 g/cm³ and without obligation.

! All flat bars and square bars sizes can be produced or cut in all common alloys. For example:

Alloy	Material No.	Alloy	Material No.	Alloy	Material No.
CuSn7Zn4Pb7	CC493K-GC	CuSn1Pb2	CC482K-GC	CuSn10Pb10	CC495K-GC
CuSn12	CC483K-GC	CuSn7PB15	CC496K-GC	CuAl10Fe5Ni5	CC333G-GC
CuSn12Ni2	CC484K-GC				

HEXAGONAL BARS CuSn7Zn4Pb7

Size mm af	Weight kg/m	Size mm af	Weight kg/m	Size mm af	Weight kg/m
19	2.9	32	8.0	50	19.4
22	3.9	36	10.1	55	23.5
24	4.6	42	13.8	60	27.9
27	5.8	46	16.5	65	32.7

In manufacturing lengths of around 3,000 mm. The weights stated in the table are theoretically calculated with a density of 8.8 g/cm³ and without obligation.

! In addition, special profiles like H-profile, U-profile, T-profile or L-profile are also available.

TUBES

Delivery Size mm Ø	Finished Size mm Ø	Weight kg/m	CuSn7Zn4Pb7 CC493K-GC	CuSn12 CC483K-GC	CuSn7Pb15 CC496K-GC
26 / 14	25 / 15	3.6	•	•	
31 / 14	30 / 15	5.6	•	•	
19	20	4.5	•	•	
36 / 14	35 / 15	7.9	•	•	
19	20	6.8	•	•	
24	25	5.3	•	•	•
41 / 14	40 / 15	10.6	•	•	•
19	20	9.5	•	•	
24	25	8.0	•	•	•
29	30	6.2	•	•	•
46 / 14	45 / 15	13.6	•	•	
19	20	12.5	•	•	•
24	25	11.0	•	•	
29	30	9.3	•	•	
34	35	7.1	•	•	•
52 / 13	50 / 15	17.9	•	•	
18	20	16.8	•	•	•
23	25	15.5	•	•	
28	30	13.7	•	•	•
33	35	11.7	•	•	
38	40	9.2	•	•	•
57 / 18	55 / 20	20.6	•	•	
23	25	19.2	•	•	
28	30	17.5	•	•	•
33	35	15.4	•	•	
38	40	13.0	•	•	
43	45	10.3	•	•	•
62 / 18	60 / 20	24.8	•	•	
23	25	23.4	•	•	•
28	30	21.6	•	•	•
33	35	19.6	•	•	
38	40	17.2	•	•	•
43	45	14.4	•	•	
48	50	11.3	•	•	•
67 / 18	65 / 20	29.2	•	•	
23	25	27.9	•	•	
28	30	26.1	•	•	
33	35	24.1	•	•	
38	40	21.6	•	•	
43	45	18.9	•	•	
48	50	15.8	•	•	•
53	55	12.3	•	•	
72 / 18	70 / 20	34.1	•	•	
23	25	32.7	•	•	•
28	30	31.0	•	•	•

Delivery Size mm Ø	Finished Size mm Ø	Weight kg/m	CuSn7Zn4Pb7 CC493K-GC	CuSn12 CC483K-GC	CuSn7Pb15 CC496K-GC
72 / 33	70 / 35	28.9	•	•	•
38	40	26.5	•	•	•
43	45	23.7	•	•	•
48	50	20.6	•	•	
53	55	17.1	•	•	
58	60	13.3	•	•	•
77 / 23	75 / 25	37.8	•	•	
28	30	36.1	•	•	
33	35	34.0	•	•	
38	40	31.6	•	•	
43	45	28.9	•	•	•
48	50	25.8	•	•	•
53	55	22.3	•	•	
58	60	18.5	•	•	
63	65	14.4	•	•	
82 / 23	80 / 25	43.4	•	•	•
28	30	41.6	•	•	•
33	35	39.6	•	•	
38	40	37.1	•	•	•
43	45	34.4	•	•	
48	50	31.3	•	•	•
53	55	27.8	•	•	
58	60	24.0	•	•	•
63	65	19.9	•	•	•
68	70	15.4	•	•	
87 / 28	85 / 30	47.5	•	•	
33	35	45.4	•	•	
38	40	43.0	•	•	•
43	45	40.2	•	•	
48	50	37.1	•	•	
53	55	33.7	•	•	•
58	60	29.9	•	•	•
63	65	25.7	•	•	•
68	70	21.2	•	•	
73	75	16.4	•	•	
92 / 28	90 / 30	53.7	•	•	•
38	40	49.2	•	•	•
43	45	46.4	•	•	
48	50	43.3	•	•	•
53	55	39.9	•	•	
58	60	36.1	•	•	
63	65	31.9	•	•	
68	70	27.4	•	•	•
73	75	22.6	•	•	
78	80	17.4	•	•	•

BRONZE /
LEADED BRONZE

TUBES

Delivery Size mm Ø	Finished Size mm Ø	Weight kg/m	CuSn7Zn4Pb7 CC493K-GC	CuSn12 CC483K-GC	CuSn7Pb15 CC496K-GC
> 97 / 43	95 / 45	53.0	.	.	.
48	50	49.9	.	.	.
58	60	42.6	.	.	.
63	65	38.5	.	.	.
68	70	34.0	.	.	.
73	75	29.2	.	.	.
78	80	24.0	.	.	.
102 / 28	100 / 30	67.2	.	.	.
38	40	62.7	.	.	.
43	45	59.9	.	.	.
48	50	56.8	.	.	.
58	60	49.5	.	.	.
68	70	40.9	.	.	.
73	75	36.1	.	.	.
78	80	30.9	.	.	.
107 / 48	105 / 50	64.0	.	.	.
68	70	48.1	.	.	.
73	75	43.3	.	.	.
78	80	38.1	.	.	.
88	90	26.7	.	.	.
112 / 38	110 / 40	77.5	.	.	.
48	50	71.6	.	.	.
58	60	64.4	.	.	.
68	70	55.7	.	.	.
73	75	50.9	.	.	.
78	80	45.7	.	.	.
83	85	40.2	.	.	.
88	90	34.3	.	.	.
117 / 73	115 / 75	58.8	.	.	.
78	80	53.6	.	.	.
83	85	48.1	.	.	.
88	90	42.2	.	.	.
93	95	36.0	.	.	.
98	100	29.4	.	.	.
122 / 38	120 / 40	93.7	.	.	.
48	50	87.8	.	.	.
58	60	80.6	.	.	.
68	70	71.9	.	.	.
73	75	67.1	.	.	.
78	80	61.9	.	.	.
83	85	56.4	.	.	.
88	90	50.5	.	.	.
93	95	44.3	.	.	.
98	100	37.7	.	.	.

Delivery Size mm Ø	Finished Size mm Ø	Weight kg/m	CuSn7Zn4Pb7 CC493K-GC	CuSn12 CC483K-GC	CuSn7Pb15 CC496K-GC
127 / 63	125 / 65	85.1	.	.	.
93	95	52.9	.	.	.
98	100	46.4	.	.	.
132 / 48	130 / 50	105.4	.	.	.
58	60	98.2	.	.	.
68	70	89.5	.	.	.
78	80	79.5	.	.	.
88	90	68.1	.	.	.
98	100	55.3	.	.	.
108	110	41.2	.	.	.
137 / 98	135 / 100	64.6	.	.	.
142 / 58	140 / 60	117.2	.	.	.
68	70	108.5	.	.	.
78	80	98.5	.	.	.
88	90	87.1	.	.	.
98	100	74.3	.	.	.
108	110	60.1	.	.	.
118	120	44.6	.	.	.
152 / 58	150 / 60	137.5	.	.	.
68	70	128.9	.	.	.
78	80	118.9	.	.	.
88	90	107.4	.	.	.
98	100	94.7	.	.	.
108	110	80.5	.	.	.
118	120	64.9	.	.	.
162 / 58	160 / 60	159.3	.	.	.
68	70	150.6	.	.	.
78	80	140.6	.	.	.
88	90	129.2	.	.	.
98	100	116.4	.	.	.
108	110	102.2	.	.	.
118	120	86.7	.	.	.
128	130	69.8	.	.	.
138	140	51.4	.	.	.
172 / 48	170 / 50	189.6	.	.	.
58	60	182.4	.	.	.
88	90	152.3	.	.	.
98	100	139.5	.	.	.
108	110	125.4	.	.	.
118	120	109.8	.	.	.
128	130	92.9	.	.	.
138	140	74.6	.	.	.
148	150	54.9	.	.	.

BRONZE / LEADED BRONZE

TUBES

Delivery Size mm Ø	Finished Size mm Ø	Weight kg/m	CuSn7Zn4Pb7 CC493K-GC	CuSn12 CC483K-GC	Delivery Size mm Ø	Finished Size mm Ø	Weight kg/m	CuSn7Zn4Pb7 CC493K-GC	CuSn12 CC483K-GC
182 / 98	180 / 100	166.5	•	•	242 / 148	240 / 150	258.8	•	•
108	110	152.4	•	•	158	160	237.8	•	•
118	120	136.9	•	•	188	190	166.5	•	•
128	130	120.0	•	•	198	200	139.9	•	•
138	140	101.8	•	•	252 / 158	250 / 160	272.1	•	•
148	150	82.2	•	•	178	180	225.9	•	•
158	160	61.1	•	•	188	190	200.8	•	•
192 / 108	190 / 110	178.4	•	•	198	200	174.2	•	•
118	120	162.9	•	•	208	210	146.3	•	•
128	130	146.0	•	•	262 / 138	260 / 140	348.4	•	•
138	140	127.8	•	•	178	180	261.6	•	•
148	150	108.1	•	•	188	190	236.4	•	•
158	160	87.1	•	•	208	210	182.0	•	•
202 / 98	200 / 100	219.8	•	•	218	220	152.7	•	•
118	120	190.3	•	•	272 / 128	270 / 130	403.7	•	•
138	140	155.1	•	•	168	170	322.4	•	•
148	150	135.5	•	•	188	190	273.5	•	•
158	160	114.5	•	•	198	200	246.9	•	•
168	170	92.1	•	•	208	210	219.0	•	•
178	180	68.3	•	•	218	220	189.7	•	•
212 / 148	210 / 150	164.3	•	•	282 / 178	280 / 180	337.1	•	•
158	160	143.3	•	•	208	210	257.4	•	•
168	170	120.9	•	•	218	220	228.1	•	•
178	180	97.1	•	•	285 / 245	280 / 250	153.9	•	•
222 / 98	220 / 100	278.7	•	•	292 / 208	288 / 212	297.2	•	•
118	120	249.1	•	•	304 / 146	300 / 150	497.7	•	•
148	150	194.4	•	•	196	200	380.2	•	•
158	160	173.4	•	•	246	250	228.1	•	•
178	180	127.2	•	•	312 / 198	308 / 202	408.9	•	•
188	190	102.1	•	•	332 / 273	328 / 277	255.1	•	•
227 / 198	225 / 200	91.1	•	•	354 / 196	350 / 200	608.3	•	•
232 / 138	230 / 140	245.5	•	•	246	250	456.2	•	•
148	150	225.9	•	•	296	300	269.6	•	•
168	170	182.5	•	•	404 / 246	400 / 250	718.8	•	•
178	180	158.7	•	•	296	300	532.2	•	•
188	190	133.6	•	•	346	350	311.1	•	•
242 / 118	240 / 120	313.6	•	•	454 / 386	450 / 390	406.4	•	•
138	140	278.4	•	•					

In manufacturing lengths of around 3,000 mm. The specified delivery dimensions are sufficient for corresponding finished dimensions with a piece length of 250 mm. The weights stated in the table are theoretically calculated with a density of 8.8 g/cm³ and without obligation.

TECHNICAL DATA SHEET

CuSn7Zn4Pb7 acc. to DIN EN 1982 (CC493K)

Material	Composition in %	Density around g/cm³	Mech. Properties	Tensile Strength rm (mpa)	Yield Point Rp 0.2 (mpa)	Elongation A (%)	Brinell Hardness (hb)
CuSn7 Zn4Pb7	Cu 81.0-85.0 Pb 5.0-8.0 Sn 6.0-8.0 Zn 2.0-5.0	8.8	Continuous Centrifugal	260	120	12	70

Characteristics: Medium-hard bearing material with good emergency running characteristics. Corrosion resistant even in seawater.

Use: Axle bearing bushes and coupling rod bearings, plain bearings shells for general mechanical engineering. For medium-loaded slideplates and strips. Normal and highly stressed plain bearing bushes when using shafts made of unhardened structural steels and surface hardened steel.

Remark: Very good machinability.

Comparable specification: C93200

CuSn12 acc. to DIN EN 1982 (CC483K)

Material	Composition in %	Density around g/cm³	Mech. Properties	Tensile Strength rm (mpa)	Yield Point Rp 0.2 (mpa)	Elongation A (%)	Brinell Hardness (hb)
CuSn12	Cu 85.0-88.5 Sn 11.0-13.0	8.8	Continuous Centrifugal	280 300	150	5 6	90

Characteristics: Material with good wear resistance. Seawater resistant.

Use: Couplings, under load moving spindle nuts, worm wheels and helical gears.

Remark: Moderate to heavy machinability.

Comparable specification: C90800

CuSn7Pb15 acc. to DIN EN 1982 (CC496K)


Material	Composition in %	Density around g/cm³	Mech. Properties	Tensile Strength rm (mpa)	Yield Point Rp 0.2 (mpa)	Elongation A (%)	Brinell Hardness (hb)
CuSn7 Pb15	Cu 74.0-80.0 Pb 13.0-17.0 Sn 6.0-8.0	9.1	Continuous Centrifugal	200	90	7 8	65

Characteristics: Soft bearing material with very good slip and emergency running characteristics, even in case of temporary lack of lubricant and water lubrication. Good corrosion resistance against sulfuric acid.

Use: Plain bearings with high surface pressures, where strong edge pressure can occur.

Remark: Very good machinability.

Comparable specification: C93800

 Do you have further technical questions? Please contact us!

BRONZE / LEADED BRONZE

A collection of various aluminum metal products including rods, tubes, and plates. The products are arranged in a way that shows different shapes and sizes, with some rods and tubes in the foreground and others in the background. The lighting is bright, highlighting the metallic texture and the smooth surfaces of the aluminum. The overall composition is clean and professional, typical of a technical or industrial catalog.

ALUMINIUM

ALUMINIUM

● ROUND BARS

drawn / pressed / cast

Dimension Ø mm	Weight kg/m	AlCuMgPb EN AW 2007	AlCuMg1 EN AW 2017	AlMg4.5Mn EN AW 5083	AlMgSi0.5 EN AW 6060	AlMgSi1 EN AW 6082	AlZnMgCu1.5 EN AW 7075
3	0.02				•		
4	0.04				•		
8	0.14	•			•	•	
10	0.22	•			•	•	
11	0.27	•					
12	0.32	•			•	•	
13	0.38	•					
14	0.44	•			•		
15	0.50	•			•	•	•
16	0.57	•			•	•	
17	0.65	•					
18	0.73	•			•	•	
20	0.90	•			•	•	•
22	1.08	•			•	•	
24	1.29	•					
25	1.40	•			•	•	•
26	1.51	•					
28	1.75	•				•	
30	2.01	•	•	•	•	•	•
31	2.15	•					
32	2.29	•			•	•	
33	2.44	•					
35	2.74	•	•		•	•	•
36	2.90	•				•	
38	3.23	•					
40	3.58	•	•	•	•	•	•
42	3.95	•				•	
45	4.53	•			•	•	•
48	5.16	•				•	
50	5.60	•	•	•	•	•	•
52	6.05	•	•			•	
55	6.77	•	•		•	•	•
56	7.02	•					
60	8.06	•	•	•	•	•	•
62	8.60	•					
65	9.46	•	•			•	•
70	10.97	•	•	•	•	•	•
75	12.59	•	•	•		•	•
80	14.33	•	•	•	•	•	•
85	16.17	•	•			•	•

Dimension Ø mm	Weight kg/m	AlCuMgPb EN AW 2007	AlCuMg1 EN AW 2017	AlMg4.5Mn EN AW 5083	AlMgSi0.5 EN AW 6060	AlMgSi1 EN AW 6082	AlZnMgCu1.5 EN AW 7075
90	18.13	•	•	•		•	•
91	18.54	•				•	
95	20.20	•	•	•		•	•
100	22.38	•	•	•	•	•	•
105	24.68	•	•			•	•
110	27.08	•	•	•		•	•
115	29.70	•				•	•
120	32.30	•	•	•		•	•
125	35.00	•	•			•	•
130	37.90	•	•	•		•	•
135	40.80	•				•	
140	43.90	•	•	•		•	•
145	47.10	•	•				
150	50.40	•	•	•		•	•
155	53.80	•				•	
160	57.40	•	•	•		•	•
165	61.00	•					
170	64.70	•	•	•		•	•
180	72.60	•	•	•		•	•
190	80.90	•	•			•	•
200	89.60	•	•	•		•	•
210	98.80	•	•			•	•
220	108.40	•		•		•	•
230	118.50	•	•	•		•	•
240	129.00	•		•		•	•
250	139.90	•	•	•		•	•
260	151.40	•				•	•
270	163.20	•	•	•		•	•
280	175.50	•		•		•	
290	188.30	•				•	
300	201.50	•		•		•	•
310	215.20	•				•	•
320	229.30	•		•		•	•
330	243.80	•					
340	258.80	•		•		•	
350	274.30	•	•			•	•
360	290.10	•		•			
370	306.50	•				•	
380	323.30	•		•			
400	358.20	•				•	•

ALUMINIUM

● ROUND BARS

drawn / pressed / cast

Dimension Ø mm	Weight kg/m	AlCuMgPb EN AW 2007	AlCuMg1 EN AW 2017	AlMg4.5Mn EN AW 5083	AlMgSi0.5 EN AW 6060	AlMgSi1 EN AW 6082	AlZnMgCu1.5 EN AW 7075
410	376.30	•		•		•	
420	394.90	•					
430	413.90	•		•			
450	453.30	•		•			
460	473.70			•		•	
480	515.80	•				•	
500	559.60	•				•	
510	582.30	•				•	
550	677.20	•		•			
580	753.00			•			
600	805.90	•		•			
610	833.00					•	
650	945.80	•					

The weights stated in the table are theoretically calculated with a density of 2.85 g/cm³ and without obligation.

! EN AW 2014 A and EN AW 2618 are partially available on request.

■ SQUARE BARS

pressed

Dimension mm	Weight kg/m	AlCu MgPb EN AW 2007	Al MgSi0.5 EN AW 6060	Al MgSi1 EN AW 6082	Dimension mm	Weight kg/m	AlCu MgPb EN AW 2007	Al MgSi0.5 EN AW 6060	Al MgSi1 EN AW 6082
8 x 8	0.18	•	•		70 x 70	13.97	•		•
10 x 10	0.29	•	•		75 x 75	16.03	•		•
12 x 12	0.41	•	•		80 x 80	18.24	•		•
15 x 15	0.64	•	•	•	85 x 85	20.59			•
16 x 16	0.73		•		90 x 90	23.09	•		•
20 x 20	1.14	•	•	•	100 x 100	28.50	•		•
25 x 25	1.78	•	•	•	110 x 110	34.49	•		•
30 x 30	2.57	•	•	•	115 x 115	37.69	•		
32 x 32	2.92	•			120 x 120	41.04	•		•
35 x 35	3.49	•	•	•	130 x 130	48.17	•		•
40 x 40	4.56	•	•	•	140 x 140	55.86	•		
45 x 45	5.77	•	•	•	150 x 150	64.13	•		•
50 x 50	7.13	•	•	•	160 x 160	72.96	•		
55 x 55	8.62	•		•	180 x 180	92.34	•		
60 x 60	10.26	•	•	•	200 x 200	114.00	•		
65 x 65	12.04	•		•	250 x 250	178.13	•		

In manufacturing lengths of around 3,000 mm / AlMgSi0.5 in lengths of around 6,000 mm. The weights stated in the table are theoretically calculated with a density of 2.85 g/cm³ and without obligation.

■ FLAT BARS

pressed

Dimension mm	Weight kg/m	AlCuMgPb EN AW 2007	AlMgSi0.5 EN AW 6060	AlMgSi1 EN AW 6082
10 x 2	0.06		•	
3	0.09		•	
4	0.11		•	
5	0.14		•	
15 x 2	0.09		•	
3	0.13		•	
4	0.17		•	
5	0.21		•	
6	0.26		•	
8	0.34	•	•	
10	0.43	•	•	
12	0.51	•		
20 x 2	0.11		•	
3	0.17		•	
4	0.23		•	
5	0.29		•	
6	0.34		•	
8	0.46	•	•	
10	0.57	•	•	
12	0.68	•	•	
15	0.86	•	•	
25 x 2	0.14		•	
3	0.21		•	
4	0.29		•	
5	0.36		•	
6	0.43		•	
8	0.57		•	
10	0.71	•	•	
12	0.86	•	•	
15	1.07	•	•	
20	1.43	•	•	•
30 x 2	0.17		•	
3	0.26		•	
4	0.34		•	
5	0.43		•	
6	0.51	•	•	
8	0.68	•	•	
10	0.86	•	•	•
12	1.03	•	•	
15	1.28	•	•	•

Dimension mm	Weight kg/m	AlCuMgPb EN AW 2007	AlMgSi0.5 EN AW 6060	AlMgSi1 EN AW 6082
30 x 20	1.71	•	•	•
25	2.14	•	•	
35 x 5	0.50		•	
8	0.80		•	
10	1.00		•	
15	1.50	•	•	
20	2.00		•	
40 x 2	0.23		•	
3	0.34		•	
4	0.46		•	
5	0.57	•	•	
6	0.68	•	•	
8	0.91	•	•	
10	1.14	•	•	•
12	1.37	•	•	•
15	1.71	•	•	•
20	2.28	•	•	•
25	2.85	•	•	•
30	3.42	•	•	•
45 x 25	3.21	•	•	
50 x 3	0.43		•	
5	0.71	•	•	
6	0.86		•	
8	1.14	•	•	•
10	1.43	•	•	•
12	1.71	•	•	•
15	2.14	•	•	•
20	2.85	•	•	•
25	3.56	•	•	•
30	4.28	•	•	•
40	5.70	•	•	•
60 x 4	0.68		•	
5	0.86	•	•	
6	1.03		•	
8	1.37	•	•	
10	1.71	•	•	•
12	2.05	•	•	
15	2.57	•	•	•
20	3.42	•	•	•
25	4.28	•	•	•

ALUMINIUM

FLAT BARS

pressed

Dimension mm	Weight kg/m	AlCuMgPb EN AW 2007	AlMgSi0.5 EN AW 6060	AlMgSi1 EN AW 6082
60 x 30	5.13	•	•	•
35	5.99	•	•	•
40	6.84	•	•	•
50	8.55	•	•	•
70 x 10	2.00	•	•	•
12	2.39	•	•	•
15	2.99	•	•	•
20	3.99	•	•	•
25	4.99	•	•	•
30	5.99	•	•	•
40	7.98	•	•	•
50	9.98	•	•	•
55	10.97	•	•	•
60	11.97	•	•	•
80 x 5	1.14	•	•	•
6	1.37	•	•	•
8	1.82	•	•	•
10	2.28	•	•	•
12	2.74	•	•	•
15	3.42	•	•	•
20	4.56	•	•	•
25	5.70	•	•	•
30	6.84	•	•	•
40	9.12	•	•	•
50	11.40	•	•	•
60	13.68	•	•	•
90 x 10	2.57	•	•	•
15	3.85	•	•	•
20	5.13	•	•	•
25	6.41	•	•	•
30	7.70	•	•	•
40	10.26	•	•	•
50	12.83	•	•	•
60	15.39	•	•	•
70	17.96	•	•	•
100 x 3	0.86	•	•	•

The weights stated in the table are theoretically calculated with a density of 2.85 g/cm³ and without obligation.

Dimension mm	Weight kg/m	AlCuMgPb EN AW 2007	AlMgSi0.5 EN AW 6060	AlMgSi1 EN AW 6082
100 x 5	1.43	•	•	•
6	1.71	•	•	•
8	2.28	•	•	•
10	2.85	•	•	•
12	3.42	•	•	•
15	4.28	•	•	•
20	5.70	•	•	•
25	7.13	•	•	•
30	8.55	•	•	•
40	11.40	•	•	•
50	14.25	•	•	•
60	17.10	•	•	•
80	22.80	•	•	•
110 x 35	10.97	•	•	•
120 x 10	3.42	•	•	•
12	4.10	•	•	•
15	5.13	•	•	•
20	6.84	•	•	•
30	10.26	•	•	•
40	13.68	•	•	•
50	17.10	•	•	•
60	20.52	•	•	•
80	27.36	•	•	•
100	34.20	•	•	•
130 x 45	16.67	•	•	•
90	33.35	•	•	•
150 x 10	4.28	•	•	•
15	6.41	•	•	•
20	8.55	•	•	•
30	12.83	•	•	•
40	17.10	•	•	•
50	21.38	•	•	•
60	25.65	•	•	•
200 x 10	5.70	•	•	•
15	8.55	•	•	•
20	11.40	•	•	•

HEXAGONAL BARS AlCuMgPb – EN AW 2007

drawn

Dimension mm WAF	Weight kg/m
14	0.48
17	0.71
19	0.89

Dimension mm WAF	Weight kg/m
22	1.19
27	1.80
30	2.22

Dimension mm WAF	Weight kg/m
32	2.53
36	3.20
41	4.15

In manufacturing lengths of around 3,000 mm. The weights stated in the table are theoretically calculated with a density of 2.85 g/cm³ and without obligation.

ANGLE-PROFILES AlMgSi0.5 – EN AW 6060

isosceles, pressed

Dimension mm	Weight kg/m
10 x 10 x 2	0.10
15 x 15 x 2	0.15
15 x 15 x 3	0.22
20 x 20 x 2	0.21
20 x 20 x 3	0.30
20 x 20 x 4	0.39
25 x 25 x 2	0.26
25 x 25 x 3	0.38
25 x 25 x 4	0.25
30 x 30 x 2	0.31
30 x 30 x 3	0.46
30 x 30 x 4	0.60
30 x 30 x 5	0.74
35 x 35 x 3	0.54

Dimension mm	Weight kg/m
35 x 35 x 4	0.71
40 x 40 x 2	0.42
40 x 40 x 3	0.62
40 x 40 x 4	0.82
40 x 40 x 5	1.01
50 x 50 x 2	0.53
50 x 50 x 3	0.79
50 x 50 x 4	1.04
50 x 50 x 5	1.28
50 x 50 x 6	1.52
50 x 50 x 8	1.99
50 x 50 x 10	2.43
60 x 60 x 4	1.25
60 x 60 x 5	1.55

Dimension mm	Weight kg/m
60 x 60 x 6	1.85
60 x 60 x 8	2.55
60 x 60 x 10	2.97
70 x 70 x 6	2.17
80 x 80 x 3	1.27
80 x 80 x 4	1.68
80 x 80 x 5	2.09
80 x 80 x 6	2.49
80 x 80 x 8	3.28
80 x 80 x 10	4.05
100 x 100 x 6	3.14
100 x 100 x 8	4.15
100 x 100 x 10	5.13
120 x 120 x 10	4.97

In manufacturing lengths of around 3,000 mm. The weights stated in the table are theoretically calculated with a density of 2.85 g/cm³ and without obligation.

ANGLE-PROFILES AlMgSi0.5 – EN AW 6060

non-isosceles, pressed

Dimension mm	Weight kg/m
15 x 10 x 2	0.12
20 x 10 x 2	0.15
20 x 15 x 2	0.18
20 x 15 x 3	0.26
25 x 15 x 3	0.30
25 x 20 x 2	0.23
30 x 15 x 2	0.23
30 x 20 x 2	0.26
30 x 15 x 3	0.34
30 x 20 x 3	0.38

Dimension mm	Weight kg/m
35 x 20 x 3	0.42
40 x 20 x 2	0.31
40 x 20 x 3	0.46
40 x 25 x 3	0.50
40 x 20 x 4	0.60
40 x 30 x 3	0.54
40 x 30 x 4	0.71
45 x 30 x 3	0.58
50 x 20 x 4	0.71
50 x 30 x 2	0.42

Dimension mm	Weight kg/m
50 x 30 x 3	0.62
50 x 30 x 4	0.82
50 x 30 x 5	1.01
60 x 30 x 2	0.48
60 x 30 x 3	0.70
60 x 30 x 5	1.15
60 x 40 x 5	1.28
70 x 20 x 2	0.48
80 x 30 x 3	0.87
80 x 40 x 3	0.95

L ANGLE-PROFILES AIMgSi0.5 – EN AW 6060

non-isosceles, pressed

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
80 x 40 x 4	1.25	100 x 50 x 8	3.07	150 x 75 x 8	4.69
80 x 40 x 5	1.55	100 x 50 x 10	3.78	150 x 75 x 10	5.81
80 x 40 x 6	1.85	120 x 60 x 6	2.82	150 x 100 x 10	6.48
80 x 40 x 8	2.42	120 x 60 x 8	3.72	200 x 100 x 10	7.83
100 x 50 x 5	1.96	120 x 80 x 10	5.13		

In manufacturing lengths of around 6,000 mm. The weights stated in the table are theoretically calculated with a density of 2.7 g/cm³ and without obligation.

T T-PROFILES AIMgSi0.5 – EN AW 6060

pressed

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
15 x 15 x 2	0.15	30 x 30 x 3	0.46	60 x 60 x 3	0.95
20 x 20 x 2	0.21	40 x 40 x 3	0.62	60 x 60 x 4	1.25
25 x 25 x 3	0.38	40 x 40 x 4	0.82	60 x 60 x 6	1.85
30 x 30 x 2	0.31	50 x 50 x 5	1.28		

In manufacturing lengths of around 6,000 mm. The weights stated in the table are theoretically calculated with a density of 2.7 g/cm³ and without obligation.

U U-PROFILES AIMgSi0.5 – EN AW 6060

pressed

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
20 x 20 x 20 x 2	0.30	40 x 40 x 40 x 3	0.92	60 x 60 x 60 x 4	1.86
25 x 25 x 25 x 2	0.38	40 x 40 x 40 x 4	1.21	60 x 120 x 60 x 8	4.84
25 x 25 x 25 x 3	0.56	50 x 50 x 50 x 4	1.53	80 x 160 x 80 x 10	8.10
30 x 30 x 30 x 3	0.68	50 x 80 x 50 x 5	2.30		
30 x 40 x 30 x 4	0.99	50 x 100 x 50 x 5	2.57		

In manufacturing lengths of around 6,000 mm. The weights stated in the table are theoretically calculated with a density of 2.7 g/cm³ and without obligation.

□ SQUARE TUBES AIMgSi0.5 – EN AW 6060

pressed

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
15 x 15 x 2	0.28	40 x 40 x 4	1.56	70 x 70 x 4	2.85
20 x 20 x 2	0.39	50 x 50 x 2	0.53	80 x 80 x 2	1.68
25 x 25 x 2	0.50	50 x 50 x 3	1.52	80 x 80 x 4	3.28
30 x 30 x 2	0.60	50 x 50 x 4	1.99	100 x 100 x 3	3.14
30 x 30 x 3	0.87	60 x 60 x 2	1.25	100 x 100 x 4	4.15
40 x 40 x 2	0.82	60 x 60 x 4	2.42	120 x 120 x 5	6.21
40 x 40 x 3	1.20				

In manufacturing lengths of around 6,000 mm. The weights stated in the table are theoretically calculated with a density of 2.7 g/cm³ and without obligation.

RECTANGULAR TUBES AIMgSi0.5 – EN AW 6060

pressed

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
20 x 10 x 2	0.28	50 x 25 x 2	0.77	80 x 40 x 3	1.85
30 x 15 x 2	0.44	50 x 25 x 3	1.12	80 x 40 x 4	2.42
30 x 20 x 2	0.50	50 x 30 x 3	1.20	80 x 50 x 4	2.64
40 x 20 x 2	0.60	50 x 40 x 4	1.77	100 x 40 x 4	2.85
40 x 20 x 3	0.87	60 x 30 x 3	1.36	100 x 50 x 4	3.07
40 x 30 x 2	0.71	60 x 40 x 3	1.52	120 x 40 x 4	3.28
40 x 30 x 3	1.04	60 x 40 x 4	1.99	120 x 50 x 4	3.50
40 x 30 x 4	1.34	80 x 20 x 2	1.04	120 x 60 x 4	3.72
50 x 20 x 2	0.71	80 x 40 x 2	1.25	150 x 50 x 4	4.15

In manufacturing lengths of around 6,000 mm. The weights stated in the table are theoretically calculated with a density of 2.7 g/cm³ and without obligation.

TUBES

pressed

Dimension mm od x wt	Weight kg/m	AlCuMgPb EN AW 2007	AlMgSi0.5 EN AW 6060	AlMgSi1 EN AW 6082	Dimension mm od x wt	Weight kg/m	AlCuMgPb EN AW 2007	AlMgSi0.5 EN AW 6060	AlMgSi1 EN AW 6082
6 x 1.0	0.04		•		25 x 2.5	0.50		•	
8 x 1.0	0.06		•		3.0	0.59		•	
1.5	0.09		•		25 x 4.0	0.75		•	
10 x 1.0	0.08		•		5.0	0.90		•	
1.5	0.11		•		30 x 2	0.50		•	
2.0	0.14		•		2.5	0.62		•	
3.0	0.19		•		3.0	0.73		•	
12 x 1.5	0.10		•		4.0	0.93		•	
2.0	0.18		•		5.0	1.12		•	
15 x 1.0	0.13		•		32 x 2.0	0.54		•	
3.0	0.32		•		4.0	1.00		•	
16 x 1.5	0.19		•		35 x 2.0	0.59		•	
2.0	0.25		•		5.0	1.34		•	
18 x 1.5	0.22		•		40 x 2.0	0.68		•	
2.0	0.29		•		2.5	0.84		•	
20 x 2.0	0.32		•		3.0	0.99		•	
3.0	0.46		•		4.0	1.29		•	
4.0	0.57		•		5.0	1.57		•	
5.0	0.67		•		10.0	2.69	•	•	
22 x 2.0	0.36		•		45 x 2.5	0.95		•	
3.0	0.51		•		50 x 2.0	0.86		•	
5.0	0.76		•		2.5	1.06		•	
24 x 2.0	0.39		•		5.0	2.01	•	•	
25 x 2.0	0.41		•		10.0	3.58	•	•	

Dimension mm od x wt	Weight kg/m	AlCuMgPb EN AW 2007	AlMgSi0.5 EN AW 6060	AlMgSi1 EN AW 6082
55 x 5.0	2.24		•	
60 x 3.0	1.53		•	
5.0	2.46		•	
10.0	4.48	•	•	•
65 x 5.0	2.69		•	
70 x 2.0	1.22		•	
3.0	1.80		•	
5.0	2.91		•	
10.0	5.37		•	•
15.0	7.39			•
80 x 5.0	3.36		•	
10.0	6.27	•	•	•
15.0	8.73			•

Dimension mm od x wt	Weight kg/m	AlCuMgPb EN AW 2007	AlMgSi0.5 EN AW 6060	AlMgSi1 EN AW 6082
90 x 5.0	3.81		•	
15.0	10.07	•		
100 x 2.0	1.75		•	
3.0	2.61		•	
5.0	4.25		•	
10.0	8.06	•		•
15.0	11.42			•
30.0	18.80		•	
110 x 20.0	16.12			•
120 x 15.0	14.10			•
130 x 15.0	15.44	•		
150 x 15.0	18.13			•
30.0	23.28	•		

The weights stated in the table are theoretically calculated with a density of 2.85 g/cm³ and without obligation.

! Further dimensions in all product groups are available on request.

Format mm	Thickness mm	Sheet Weight kg	Al 99.5 semi-hard EN AW 1050 A	AlCuMg1 EN AW 2017 A	AlMg3 soft EN AW 5754	AlMg3 semi-hard EN AW 5754
2,000 x 1,000	0.5	2.7	on request			•
	1.0	5.4		•	•	
	1.5	8.1		•	•	
	2.0	10.8		•	•	
	2.5	13.5		•	•	
3.0	16.2	•		•		
4.0	21.6	•		•		
5.0	27.0	•		•		
2,500 x 1,250	1.0	5.4				•
	1.5	12.7				•
	2.0	16.9			•	•
	3.0	25.4			•	•
	5.0	42.2			•	•
3,000 x 1,500	1.0	12.2			•	•
	1.5	18.3				•
	2.0	24.3			•	
	3.0	36.5			•	
	4.0	48.6			•	
5.0	60.8			•		

The weights stated in the table are theoretically calculated with a density of 2.7 g/cm³ and without obligation.

QUINTETTE WARTED PLATES AlMg3 – EN AW 5754

Dimension mm	Sheet Weight kg	Dimension mm	Sheet Weight kg	Dimension mm	Sheet Weight kg
2,000 x 1,000 x 2.5/4.0	14.3	2,500 x 1,250 x 2.5/4.0	22.3	3,000 x 1,500 x 2.5/4.0	32.1
3.0/4.5	17.1	3.0/4.5	26.8	3.0/4.5	38.5
3.5/5.0	20.0	3.5/5.0	31.2	3.5/5.0	44.9
5.0/6.5	28.5	5.0/6.5	44.6	5.0/6.5	64.2
8.0/9.5	45.6	8.0/9.5	71.3	8.0/9.5	102.6

The weights stated in the table are theoretically calculated with a density of 2.7 g/cm³ and without obligation.

rolled

Format mm	Thickness mm	Sheet Weight kg	AlCuMg1 EN AW 2017 A	AlMg4.5Mn EN AW 5083	AlMg3 EN AW 5754	AlMgSi1 EN AW 6082	AlZnMgCu1.5 EN AW 7075
2,020 x 1,020	5	28.9	•		•		•
	6	34.7	•		•		•*
	8	46.2	•		•		•*
	10	57.7	•		•		•*
	12	69.3	•		•		•*
	15	86.6	•		•		•*
	20	115.4	•		•*		•*
	25	144.3	•		•*		•*
	30	173.1	•		•*		•*
	3,020 x 1,520	6	77.2		•	•	
8		102.9	•	•	•	•	•*
10		128.6	•	•	•	•	•*
12		154.3	•	•	•	•	•*
15		192.8	•	•	•	•	•*
18		231.4					•*
20		257.1	•	•	•*	•	•*
22		282.8					•*
25		321.4	•	•	•*	•	•*
30		385.6	•	•	•*	•	•*
35		449.9	•	•	•	•	•*
40		514.2	•	•	•	•	•*
45		578.4	•	•		•	•*
50		642.7	•	•	•	•	•*
55		707.0	•				•*
60		771.2	•	•	•	•	•*
65		835.5			•		•*
70		899.8	•	•	•	•	•*
75		964.0					•*
80		1,028.3	•	•	•	•	•*
90		1,156.8	•	•		•	•*
100		1,285.4	•	•	•	•	•*
3,020 x 1,020	110	1,413.9	•	•		•	•*
	120	1,542.4		•		•	•*
	125	1,606.7					•*
	130	1,671.0		•			•*
	140	1,799.5		•			•*
	150	1,928.0		•		•	•*
3,020 x 1,020	160	1,380.1		•			•*
	180	1,552.6					•*
	190	1,638.8					•*
	200	1,725.1					•*

The weights stated in the table are theoretically calculated with a density of 2.8 g/cm³ and without obligation.

* Thickness tolerance always positive

plain-milled, foil-coated on both sides, roughness depth Ra 0,4 µm

Format mm	Thickness mm	Sheet Weight kg	AlMg4.5Mn0.7 EN AW 5083	AlZn4Mg2 Unidal AA 7019	AlZn5.5Mg1.5 EN AW 7021	AlZn5.5MgCu EN AW 7075
2,020 x 1,020	15	86.6			•	
3,020 x 1,520	5	64.3	•			
	6	77.2	•			
	8	102.9	•	•		
	10	128.6	•	•		•
	12	154.3	•	•		•
	15	192.8	•	•		•
	16	205.7	•			
	18	231.4	•			
	20	257.1	•	•	•	•
	22	282.8	•			
	25	321.4	•	•	•	•
	30	385.6	•	•	•	•
	35	449.9	•	•	•	
	40	514.2	•	•	•	•
	45	578.4	•			
	50	642.7	•	•	•	
	55	707.0	•			
	60	771.2	•	•		
65	835.5	•				
70	899.8	•	•			
80	1,028.3	•	•			
90	1,156.8	•				
100	1,285.4	•				

The weights stated in the table are theoretically calculated with a density of 2.8 g/cm³ and without obligation.

ALUMINIUM

Characteristics and Scope of Applications of Aluminium

European Standard	EN AW-1050A	EN AW-2007	EN AW-2011	EN AW-2017A	EN AW-5083	EN AW-5754	EN AW-6060	EN AW-6082	EN AW-7075
EN Alloy	Al 99.5	AlCu4PbMgMn	AlCu6BiPb	AlCu4MgSi	AlMg4.5Mn0.7	AlMg3	AlMgSi	AlSiMgMn	AlZn5.5MgCu
DIN Material No.	3.0255	3.1645	3.1655	3.1325	3.3547	3.3555	3.3206	3.2315	3.4365
DIN Alloy	Al 99.5	AlCuMgPb	AlCuBiPb	AlCuMg1	AlMg4.5Mn	AlMg3	AlMgSi0.5	AlMgSi1	AlZnMgCu1.5
Density g/cm ³	2.7	2.85	2.85	2.8	2.7	2.7	2.7	2.75	2.8
Electric Conductivity m/Ohm*mm ²	34-36	18-22	22-26	18-28	16-19	20-23	28-34	24-32	19-23
Decorative Anodizing Quality	2	ng	ng	ng	4	2	2	3	ng
Hard Anodizing	1	5	5	2	2	1	1	1	3
Coating	1	4	4	3	4	3	1	2	3
Welding	2	ng	ng	ng	2	2	2	2	ng
Resistance to Weather Conditions	2	5	4	4	1	1	1	1	5
Seawater Resistance	3	5	5	5	1	2	2	2	5
Scope of Applications	Container Construction, Food Industry, Profiles for Decoration, Architecture and Automobile Body	Drilling, Turning and Milling Qualities (Machining Alloy)	Drilling, Turning and Milling Qualities (Machining Alloy)	Aircraft, Transport and Traffic, Forging Parts	Apparatus-, Container- and Vehicle Construction, Cryogenic Engineering, Shipbuilding, Food Industry	Apparatus-, Metal- and Container Construction, Vehicle- and Shipbuilding Construction, Food Industry	Windows, Doors, Metal Construction, Interior Decoration, Metal Frames, Textile Industry, Houseware, Decoration, Food Industry	Food Industry, Decoration, Vehicle- and Shipbuilding Construction	Aircraft, Mechanical Engineering, special Alloy for Moulds, Tools and Fixture Constructions

1 = excellent; 2 = good; 3 = satisfactory; 4 = sufficient; 5 = bad; ng = unsuitable
All information without guarantee

Mechanical and Physical Characteristics of Aluminium Rolling Billets

European Standard	EN AW-2017 A	EN AW-5083	EN AW-5754	EN AW-6082	EN AW-7075
EN Alloy	AlCu4MgSi	AlMg4.5Mn0.7	AlMg3	AlSiMgMn	AlZn5.5MgCu
DIN Material No.	3.1325	3.3547	3.3535	3.2315	3.4365
DIN Alloy	AlCuMg1	AlMg4.5Mn	AlMg3	AlMgSi1	AlZnMgCu1.5
Tensile Strength *** Rm (MPa)	300 - 390*	245 - 275*	190	260 - 310*	420 - 525*
Yield Point *** Rp 0.2 (MPa)	200 - 245*	90 - 125*	80	220 - 260*	220 - 460*
Elongation (%) ***	13 - 15*	11 - 16*	12 - 18*	6 - 10*	not specified
Decorative Anodising	unsuitable	sufficient	good	satisfactory	unsuitable
Hard Anodization	good	good	very good	very good	satisfactory
Machinability **	good	good	sufficient	satisfactory	very good
Welding	unsuitable	good	good	good	unsuitable
Resistance to - Weather Conditions - Seawater	sufficient bad	very good good	very good good	very good good	bad bad

*dependent on thickness; **dependent on machining parameters; ***guaranteed minimum values acc. to EN 485-2
All information without guarantee

Mechanical and Physical Characteristics of Precision Plates Surface-milled on both Sides

Surface: surface-milled on both sides, raw depth Ra 0,4 µm, foil-coated two-sided
Thickness Tolerance: +/- 0.1 mm

Through heat treatment, a high lack of tension which reduces a deformation after processing, will be achieved.

European Standard	EN AW 5083	Unidal AA 7019	EN AW 7021	EN AW 7075
EN Alloy	AlMg4.5Mn0.7	AlZn4Mg2	AlZn5.5Mg1.5	AlZn5.5MgCu
Yield Strength Rp 0.2	> 110	> 330	> 325	> 390
Tensile Strength	> 230	> 390	> 375	> 480
Elongation	> 10	> 8	> 4	> 5
Brinell Hardness	> 68	> 120	> 120	not specified
Density	2.7	2.75	2.8	2.8
Electrical Conductivity	> 16	> 19	> 21	> 17
Machinability	good	very good	very good	good
Welding	sehr gut	good	very good	WIG/MIG = unsuitable Resistance = well suited
Anodisability	technically = good decorative = sufficient	technically = very good decorative = very good	technically = very good decorative = bad	technically = good decorative = bad

All information without guarantee



BRASS

BRASS

● ROUND BARS CuZn39Pb3 (Ms58) – CW614N

drawn/pressed/cast

Dimension Ø mm	Weight kg/m	Dimension Ø mm	Weight kg/m	Dimension Ø mm	Weight kg/m
2	0.04	22	3.4	60	24.6
2.5	0.05	23	3.7	65	28.9
3	0.07	24	4.0	70	33.4
3.5	0.10	25	4.4	75	38.3
4	0.12	26	4.7	80	43.6
4.5	0.16	27	5.1	85	49.2
5	0.19	28	5.5	90	55.1
5.5	0.23	29	5.8	95	61.4
6	0.27	30	6.3	100	68.0
6.5	0.31	31	6.7	105	74.9
7	0.36	32	7.1	110	82.2
7.5	0.41	33	7.5	120	97.8
8	0.47	34	8.0	125	106.1
9	0.58	35	8.5	130	114.7
9.5	0.65	36	9.0	140	133.0
10	0.72	37	9.4	150	152.6
11	0.86	38	10.0	160	173.6
12	1.1	40	11.0	170	195.9
13	1.2	42	12.1	180	219.6
14	1.4	45	13.9	190	244.7
15	1.6	46	14.5	200	271.0
16	1.8	48	15.8	225	342.9
17	2.1	50	17.1	250	423.2
18	2.3	52	18.5	280	530.7
19	2.6	55	20.7	290	569.3
20	2.8	56	21.5	300	609.2
21	3.1	58	23.0		

The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

● ROUND BARS CuZn37Mn3Al2PbSi (SoMs58Al2) – CW713R

drawn/pressed/cast

Dimension Ø mm	Weight kg/m	Dimension Ø mm	Weight kg/m	Dimension Ø mm	Weight kg/m
8	0.47	35	8.5	100	68.0
10	0.72	40	11.0	105	74.9
12	1.1	45	13.9	110	82.2
13	1.2	50	17.1	120	97.8
14	1.4	55	20.7	130	114.7
15	1.6	60	24.6	140	133.0
18	2.3	65	28.9	150	152.6
20	2.8	70	33.4	160	173.6
22	3.4	75	38.3	170	195.9
25	4.4	80	43.6	180	219.6
28	5.5	85	49.2	200	271.0
30	6.3	90	55.1	210	298.8
32	7.1	95	61.4		

The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

■ SQUARE BARS CuZn39Pb3 (Ms58) – CW614N

drawn/pressed

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
5 x 5	0.22	20 x 20	3.5	50 x 50	21.5
6 x 6	0.31	22 x 22	4.2	55 x 55	26.1
7 x 7	0.42	24 x 24	5.0	60 x 60	31.0
8 x 8	0.55	25 x 25	5.4	65 x 65	36.4
9 x 9	0.70	27 x 27	6.3	70 x 70	42.2
10 x 10	0.86	30 x 30	7.8	75 x 75	48.4
12 x 12	1.30	32 x 32	8.9	80 x 80	55.1
14 x 14	1.7	35 x 35	10.6	90 x 90	69.7
15 x 15	2.0	40 x 40	13.8	100 x 100	86.0
16 x 16	2.3	45 x 45	17.5	110 x 110	104.1

The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

SQUARE BARS CuZn39Pb3 (MS58) – CW614N

drawn/pressed

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
5	0.20	17	2.2	46	15.9
6	0.28	18	2.5	48	17.3
7	0.38	19	2.8	50	18.8
8	0.49	20	3.1	55	22.7
9	0.62	22	3.7	60	27.0
10	0.77	24	4.4	65	31.7
11	0.93	27	5.5	70	36.7
12	1.1	30	6.8	75	42.1
13	1.3	32	7.7	80	47.9
14	1.5	36	9.8	85	54.1
15	1.8	41	12.7	90	60.6
16	2.0	42	13.3		

The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

FLAT BARS (Ms58) CuZn39Pb3 – CW614N/CuZn40Pb2 – CW617N

drawn/pressed

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
8 x 3	0.21	20 x 5	0.86	30 x 10	2.58
10 x 2	0.17	6	1.03	12	3.10
3	0.26	8	1.38	15	3.87
4	0.34	10	1.72	20	5.16
5	0.43	12	2.06	25	6.45
6	0.52	15	2.58	35 x 3	0.90
8	0.69	25 x 3	0.65	4	1.3
12 x 3	0.31	4	0.86	5	1.6
4	0.41	5	1.08	6	1.9
5	0.52	6	1.29	8	2.5
6	0.62	8	1.72	10	3.1
8	0.83	10	2.15	12	3.7
15 x 4	0.52	12	2.58	15	4.6
5	0.65	15	3.23	20	6.1
6	0.77	20	4.30	30	4.0
8	1.03	30 x 2	0.52	40 x 2	0.7
10	1.29	3	0.77	3	1.1
16 x 8	1.10	4	1.03	4	1.4
20 x 2	0.34	5	1.29	5	1.8
3	0.52	6	1.55	6	2.1
4	0.69	8	2.06	8	2.8

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
40 x 10	3.5	50 x 35	15.1	70 x 40	24.1
12	4.2	40	17.2	80 x 5	3.5
15	5.2	60 x 3	1.6	6	4.2
20	6.9	4	2.1	8	5.6
25	8.6	5	2.6	10	6.9
30	10.4	6	3.1	15	10.4
35	12.1	8	4.2	20	13.8
45 x 8	3.1	10	5.2	25	17.2
20	7.8	15	7.8	30	20.7
25	9.7	20	10.4	40	27.6
50 x 3	1.3	25	12.9	50	34.4
5	2.2	30	15.5	100 x 6	5.2
6	2.6	35	18.1	8	6.9
8	3.5	40	20.7	10	8.6
10	4.3	70 x 6	3.7	15	12.9
12	5.2	10	6.1	20	17.2
15	6.5	12	7.3	30	25.8
20	8.6	15	9.1	40	34.4
25	10.8	20	12.1	50	43.0
30	12.9	30	18.1		

In manufacturing lengths of around 3,000 mm. The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

U-PROFILES CuZn43Pb2Al (Ms56) – CW624N

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
8 x 8 x 8 x 1	0.19	20 x 20 x 20 x 2	0.96	30 x 30 x 30 x 2	1.48
10 x 10 x 10 x 1	0.24	20 x 20 x 20 x 3	1.39	30 x 30 x 30 x 3	2.17
10 x 10 x 10 x 2	0.45	25 x 25 x 25 x 2	1.22	40 x 40 x 40 x 4	3.85
15 x 15 x 15 x 2	0.71	25 x 25 x 25 x 3	1.78		

In manufacturing lengths of around 5,000 mm. The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

ANGLE PROFILES CuZn43Pb2Al (Ms56) – CW624N

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
10 x 10 x 1	0.16	30 x 10 x 2	0.65	40 x 40 x 3	1.99
10 x 10 x 2	0.31	30 x 15 x 3	1.08	40 x 40 x 4	2.61
15 x 15 x 2	0.48	30 x 20 x 2	0.83	40 x 40 x 5	3.23
15 x 15 x 3	0.70	30 x 30 x 2	1.00	40 x 40 x 10	6.02
20 x 10 x 2	0.48	30 x 30 x 3	1.47	50 x 25 x 4	2.44
20 x 20 x 2	0.65	30 x 30 x 4	1.93	50 x 30 x 3	1.99
20 x 20 x 3	0.95	30 x 30 x 5	2.37	50 x 30 x 4	2.61
20 x 20 x 4	1.24	35 x 35 x 3	1.73	50 x 50 x 4	3.30
25 x 10 x 2	0.57	35 x 35 x 5	3.66	50 x 50 x 5	4.09
25 x 15 x 2	0.65	40 x 20 x 2	1.00	60 x 30 x 3	2.24
25 x 25 x 2	0.83	40 x 20 x 3	1.47	60 x 60 x 4	3.99
25 x 25 x 3	1.21	40 x 20 x 4	1.93	60 x 60 x 5	4.95
25 x 25 x 4	1.58	40 x 40 x 2	1.34	60 x 60 x 6	5.88
25 x 25 x 5	1.94				

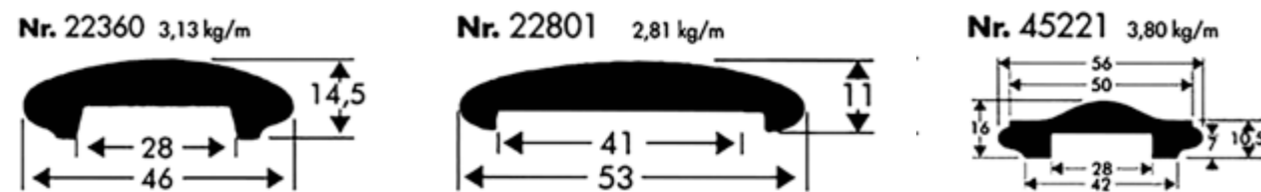
In manufacturing lengths of around 5,000 mm. The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

T-PROFILES CuZn43Pb2Al (Ms56) – CW624N

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
15 x 15 x 2	0.48	25 x 25 x 2	0.83	30 x 30 x 3	1.47
20 x 20 x 2	0.65	25 x 25 x 3	1.21	40 x 40 x 4	2.61

In manufacturing lengths of around 5,000 mm. The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

HANDRAIL PROFILES



In manufacturing lengths of around 5,000 mm. The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

SQUARE TUBES CuZn37 (Ms63) – CW508L

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
8 x 8 x 1	0.24	20 x 20 x 2	1.24	30 x 30 x 1.5	1.47
10 x 10 x 1	0.31	25 x 25 x 1	0.83	40 x 40 x 1	1.34
16 x 16 x 1	0.52	25 x 25 x 1.5	1.21	40 x 40 x 1.5	1.99
20 x 20 x 1	0.65	25 x 25 x 2	1.58	40 x 40 x 2	2.61
20 x 20 x 1.5	0.95	30 x 30 x 1	1.00		

In manufacturing lengths of around 5,000 mm. The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

FLAT SQUARE TUBES CuZn37 (Ms63) – CW508L

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
20 x 10 x 1	0.48	30 x 15 x 1	0.74	40 x 20 x 1.5	1.47
20 x 10 x 1.5	0.70	30 x 15 x 1.5	1.08		

In manufacturing lengths of around 5,000 mm. The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

TUBES CuZn37 (Ms63) – CW508L

Dimension mm od x wt	Weight kg/m	Dimension mm od x wt	Weight kg/m	Dimension mm od x wt	Weight kg/m
4 x 0.5	0.05	12 x 1.5	0.43	30 x 0.5	0.40
1.0	0.08	2.0	0.54	1.0	0.78
5 x 0.5	0.06	13 x 1.0	0.32	1.5	1.16
1.0	0.11	1.5	0.47	32 x 1.0	0.84
6 x 0.5	0.07	2.0	0.59	1.5	1.24
1.0	0.14	14 x 1.0	0.35	34 x 1.0	0.89
1.5	0.18	1.5	0.51	35 x 1.0	0.92
7 x 1.0	0.16	15 x 1.0	0.38	1.5	1.36
8 x 0.5	0.10	16 x 1.0	0.41	38 x 1.0	1.00
1.0	0.19	1.5	0.59	40 x 1.0	1.05
1.5	0.26	2.0	0.76	1.5	1.56
2.0	0.32	17 x 1.0	0.43	42 x 1.0	1.11
9 x 0.5	0.11	18 x 1.0	0.46	45 x 1.0	1.19
9.8 x 1.0	0.24	20 x 1.0	0.51	50 x 1.0	1.32
10 x 0.5	0.13	1.5	0.75	55 x 1.0	1.46
1.0	0.24	2.0	0.97	60 x 1.0	1.59
1.5	0.34	22 x 1.0	0.57	1.5	2.37
2.0	0.43	25 x 1.0	0.65	65 x 1.0	1.73
11 x 0.5	0.14	1.5	0.95	80 x 1.0	2.13
12 x 0.5	0.16	28 x 1.0	0.73	90 x 1.0	2.40
1.0	0.30	1.5	1.07	100 x 1.0	2.67

In manufacturing lengths of around 5,000 mm. The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

TUBES CuZn39Pb3 (Ms58) – CW614N

Dimension mm od x wt	Weight kg/m	Dimension mm od x wt	Weight kg/m	Dimension mm od x wt	Weight kg/m
12 x 3.0	0.8	30 x 2.5	1.9	48 x 4.0	4.8
16 x 3.0	1.1	3.0	2.2	5.0	5.9
4.0	1.3	4.0	2.9	50 x 2.0	2.6
18 x 2.0	0.9	5.0	3.4	2.5	3.3
2.5	1.1	7.5	4.6	3.0	3.9
3.0	1.3	32 x 2.5	2.0	5.0	6.1
5.0	1.8	3.0	2.4	10.0	10.9
20 x 2.5	1.2	4.0	3.1	55 x 2.5	3.6
3.0	1.4	33 x 3.0	2.5	55 x 4.0	5.8
4.0	1.8	34 x 3.0	2.6	5.0	6.8
5.0	2.1	4.0	3.3	60 x 3.0	4.7
6.0	2.3	35 x 4.0	3.4	4.0	6.1
21 x 3.0	1.5	5.0	4.1	5.0	7.5
22 x 2.0	1.1	36 x 3.0	2.7	10.0	13.6
3.0	1.6	4.0	3.5	65 x 8.0	12.4
4.0	2.0	38 x 4.0	3.7	70 x 5.0	8.8
24 x 3.0	1.8	6.0	5.2	10.0	16.3
5.0	2.6	40 x 2.0	2.1	75 x 2.5	4.9
25 x 2.0	1.3	2.5	2.6	80 x 3.0	6.3
3.0	1.8	3.0	3.0	4.0	8.3
4.0	2.3	5.0	4.8	5.0	10.2
5.0	2.8	6.0	5.6	90 x 5.0	11.5
26 x 3.0	1.9	42 x 2.0	2.2	100 x 5.0	12.9
4.0	2.4	5.0	5.0	110 x 10.0	27.1
28 x 3.0	2.1	7.0	6.7	120 x 5.0	15.6
5.0	3.2	45 x 2.5	2.9	10.0	29.8
30 x 2.0	1.6	5.0	5.5	150 x 20.0	70.3

The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

! Brass bands are also available on request.

SHEETS

Format mm	Thick- ness mm	Weight kg	CuZn37 (Ms63) CW508L semi-hard	CuZn39Pb2 (Ms58) CW612N hard
2,000 x 600	1.0	10.3		•
	1.5	15.5		•
	2.0	20.6		•
	3.0	31.0		•
	4.0	41.3		•
	5.0	51.6	•	•
	6.0	61.9		•
2,000 x 1,000	7.0	72.2		•
	0.5	8.6	•	
	0.8	13.8	•	
	1.0	17.2	•	

Format mm	Thick- ness mm	Weight kg	CuZn37 (Ms63) CW508L semi-hard	CuZn39Pb2 (Ms58) CW612N hard
2,000 x 1,000	1.5	25.8	•	
	2.0	34.4	•	
	2.5	43.0	•	
	3.0	51.6	•	
	4.0	68.8	•	
	5.0	86.0	•	
2,438 x 1,219	6.0	103.2	•	
	1.0	25.6	•	
	1.5	38.3	•	
	2.0	51.1	•	

The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

PLATES

Format mm	Thickness mm	Weight kg	CuZn39/40Pb2 CW612N / CW617N as rolled
3,020 x 1,520	8.0	335.6	•
	10.0	434.3	•
	12.0	513.2	•
	15.0	631.6	•
	20.0	829.0	•
	25.0	1,026.4	•
	30.0	1,223.8	•
	35.0	1,421.2	•
	40.0	1,618.6	•

Format mm	Thickness mm	Weight kg	CuZn39/40Pb2 CW612N / CW617N as rolled
3,020 x 1,520	45.0	1,816.0	•
3,020 x 1,020	50.0	1,351.1	•
	60.0	1,616.0	•
	70.0	1,880.9	•
2,020 x 1,020	80.0	1,435.3	•
	100.0	1,789.7	•
2,000 x 800	120.0	1,665.0	•
2,000 x 600	150.0	1,558.3	•

The weights stated in the table are theoretically calculated with a density of 8.6 g/cm³ and without obligation.

TECHNICAL DATA SHEET

CuZn39Pb3 acc. to DIN EN 12164-12168/12420/12449/1652 (CW614N)

Material	Composition in %	Density around g/cm ³	Mech. Properties	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)
CuZn39Pb3	Cu 57.7-59.0 Pb 2.5-3.5 Zn Rest	8.6	M R360 R430	Min. 360 Min. 430	Max. 320 Min. 220	Min. 20 Min. 10

Characteristics: Most common alloy for machining, good hot-forming properties.

Use: Most common alloy for the machining on automatic lathes, turned parts of all kinds.

Remark: Very good machinability.

CuZn37 acc. to DIN EN 12163-12167/12420/12449/1652 (CW508L)

Material	Composition in %	Density around g/cm ³	Mech. Properties	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)
CuZn37	Cu 62.0-64.0 Zn Rest	8.44	WH R350	350-440		Min. 19

Characteristics: Most common alloy for cold forming, good solderability and weldability.

Use: Screws, printing cylinder, leaf springs, radiator strips.

Remark: Moderate machinability.

CuZn40Pb2 acc. to DIN EN 12164-12168/12420/12449/1652 (CW617N)

Material	Composition in %	Density around g/cm ³	Mech. Properties	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)
CuZn40Pb2	Cu 57-59.0 Pb 1.5-2.5 Zn Rest	8.6	M R360 R430	Min. 360 Min. 430	Max. 320 Min. 220	Min. 20 Min. 10

Characteristics: Good hot-forming properties, limited cold-forming properties.

Use: Common alloy for all metal machining procedures.

Remark: Very good machinability.

CuZn43Pb2Al DIN EN 12167 (CW624N)

Material	Composition in %	Density around g/cm ³	Mech. Properties	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)
CuZn43Pb2Al	Cu 55-57 Al 0.05-0.5 Pb 1.6-3.0 Zn Rest	8.4	pressed			

Characteristics: Good hot-forming properties.

Use: Brass hand rails, Angle-, T- and U-Profiles.

Remark: Very good machinability.

CuZn37Mn3Al2PbSi acc. to DIN EN 12164-12168/12420/12449/1652 (CW713R)

Material	Composition in %	Density around g/cm ³	Mech. Properties	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)
CuZn37Mn3Al2PbSi	Cu 57.0-59.0 Mn 1.5-3.0 Al 1.3-2.3 Pb 0.2-0.8 Si 0.3-1.3	8.1	M R540 R590	540 590	280 370	15 10

Characteristics: High-wear resistance, good hot-forming properties. High strength properties and good corrosion resistance.

Use: Construction parts in the mechanical engineering sector, synchronizer rings, valve guides, plain bearings.

Remark: Moderate to medium machinability, strenght-dependent.



ALUMINIUM BRONZE / PHOSPHOR BRONZE

ALUMINIUM BRONZE /
PHOSPHOR BRONZE

● ROUND BARS

Ø mm	Weight kg/m	CuAl10Fe5Ni5 CC333G-GC	CuAl10Ni5Fe4 CW307G pressed	CuAl10Ni5Fe4 CW307G drawn	CuAl11Fe6Ni6 CC334G-GC
8	0.38			•	
10	0.60			•	
12	0.86			•	
13	1.1			•	
14	1.2			•	
15	1.4		•	•	
16	1.6			•	
17	1.8	•		•	
18	2.0			•	
19	2.2			•	
20	2.4		•	•	
21	2.7		•	•	
22	2.9	•	•	•	
23	3.2			•	
24	3.5			•	
25	3.8		•	•	
26	4.1		•	•	
27	4.4	•	•	•	
28	4.7		•	•	
29	5.1			•	
30	5.4		•	•	
31	5.8			•	
32	6.2	•	•	•	
33	6.6			•	
35	7.4			•	
36	7.8			•	
37	8.2	•	•	•	
38	8.7		•	•	
40	9.6		•	•	
41	10.1			•	
42	10.6	•	•	•	•
45	12.1		•	•	
46	12.7			•	
47	13.2	•	•	•	
50	15.0		•	•	
51	15.6		•		
52	16.2	•	•		
55	18.1		•	•	
56	18.8			•	
57	19.4	•	•	•	
58	20.1		•		

Ø mm	Weight kg/m	CuAl10Fe5Ni5 CC333G-GC	CuAl10Ni5Fe4 CW307G pressed	CuAl10Ni5Fe4 CW307G drawn	CuAl11Fe6Ni6 CC334G-GC
60	21.5		•	•	
62	23.0	•	•		•
64	24.5		•		
65	25.3		•	•	
67	26.8	•	•		
70	29.3		•	•	
72	31.0	•	•	•	
76	34.5		•		
77	35.4	•	•		
80	38.3		•		
82	40.2	•	•		•
85	43.2		•		
87	45.2	•	•		
90	48.4		•		
92	50.6	•	•		
97	56.2	•	•		
100	59.7		•		
102	62.2	•	•		•
107	68.4	•	•		
112	74.9	•	•		
117	81.8	•	•		
122	88.9	•	•		•
125	93.3		•		
127	96.3		•		
132	104.1	•	•		
142	120.4	•	•		•
152	138.0	•	•		
162	156.7	•	•		•
173	178.7	•			
177	187.1	•			
183	199.9	•			•
187	208.8	•			
193	222.4	•			
203	246.0	•			•
213	270.9	•			
223	296.9	•			
233	324.1	•			
243	352.5	•			
253	382.1	•			
263	412.9	•			
273	444.9	•			

ALUMINIUM BRONZE / PHOSPHOR BRONZE

● ROUND BARS

Ø mm	Weight kg/m	CuAl10Fe5Ni5 CC333G-GC	CuAl10Ni5Fe4 CW307G pressed	CuAl10Ni5Fe4 CW307G drawn	CuAl11Fe6Ni6 CC334G-GC
283	478.1	•			
293	512.5	•			
303	548.1	•			
313	584.8	•			
323	622.8	•			
333	661.9	cast			
343	702.3	cast			
353	743.8	cast			
363	786.6	cast			
383	875.6	cast			
404	974.3	cast			
454	1,230.4	cast			
480	1,375.3	cast			
508	1,540.4	cast			

The weights stated in the table are theoretically calculated with a density of 7.6 g/cm³ and without obligation.

■ FLAT BARS CuAl10Fe5Ni5-C-GC

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
313 x 12	28.5	313 x 53	126.1	313 x 103	245.0
313 x 15	35.7	313 x 63	149.9	313 x 122	290.2
313 x 17	40.4	313 x 73	173.7	313 x 155	368.7
313 x 23	54.7	313 x 83	197.4	400 x 270	820.8
313 x 33	78.5	313 x 93	221.2	1,155 x 220 *	1,931.2
313 x 43	102.3				

In manufacturing lengths of around 3,000 mm. The weights stated in the table are theoretically calculated with a density of 7.6 g/cm³ and without obligation. *cast

○ TUBES CuAl10Fe5Ni5-C-GC

Delivery Size mm Ø	Weight kg/m	Delivery Size mm Ø	Weight kg/m	Delivery Size mm Ø	Weight kg/m
33 / 18	5.2	52 / 18	15.0	57 / 33	14.0
37 / 18	6.9	23	13.9	38	11.9
42 / 18	9.3	28	12.4	43	9.6
23	8.1	33	10.7	62 / 18	22.0
28	6.7	38	8.6	23	20.8
47 / 23	10.9	57 / 23	17.2	28	19.3
28	9.4	28	15.7	38	15.5

TUBES CuAl10Fe5Ni5-C-GC ○

Delivery Size mm Ø	Weight kg/m	Delivery Size mm Ø	Weight kg/m	Delivery Size mm Ø	Weight kg/m
62 / 43	13.2	97 / 68	30.5	152 / 118	58.0
48	10.5	78	21.9	162 / 78	123.2
67 / 23	24.7	102 / 38	55.2	88	113.4
28	23.2	48	50.1	98	102.4
33	21.5	58	43.9	108	90.3
43	17.1	68	36.5	118	76.9
48	14.4	78	27.9	128	62.3
72 / 28	27.5	112 / 38	68.0	138	46.6
38	23.6	48	63.0	172 / 68	151.9
43	21.3	58	56.8	78	143.3
48	18.6	68	49.4	88	133.5
53	15.7	78	40.8	98	122.5
58	12.4	88	31.0	108	110.3
77 / 33	30.2	122 / 38	82.1	118	96.9
43	25.8	48	77.1	128	82.4
48	23.1	58	70.9	138	66.6
53	20.2	68	63.5	148	49.7
58	16.9	78	54.9	182 / 98	143.7
82 / 28	36.8	88	45.1	108	131.6
38	32.9	98	34.1	118	118.2
48	27.9	132 / 48	92.4	128	103.6
53	25.0	58	86.2	138	87.9
63	18.2	68	78.8	148	70.9
68	14.3	78	70.2	192 / 118	140.6
87 / 48	33.0	88	60.4	138	110.3
53	30.1	98	49.4	148	93.4
58	26.8	108	37.2	158	75.2
63	23.3	142 / 68	95.3	202 / 138	133.9
68	19.4	78	86.7	148	117.0
92 / 33	45.5	88	76.9	158	98.8
38	43.5	98	65.9	168	79.5
48	38.4	108	53.7	212 / 138	158.8
58	32.2	118	40.4	158	123.7
63	28.7	152 / 68	112.9	222 / 118	215.1
68	24.8	78	104.3	138	184.8
78	16.2	88	94.5	232 / 168	157.6
97 / 43	46.8	98	83.6	178	137.0
48	44.1	108	71.4	252 / 168	215.6
58	37.9				

In manufacturing lengths of around 3,000 mm. The weights stated in the table are theoretically calculated with a density of 7.6 g/cm³ and without obligation.

! Larger dimensions are available in centrifugal casting (see from page 68).

ALUMINIUM BRONZE / PHOSPHOR BRONZE

● ROUND BARS CuSn8/CuSn8P

drawn / pressed

Dimension Ø mm	Weight kg/m	Dimension Ø mm	Weight kg/m	Dimension Ø mm	Weight kg/m
3	0.08	23	3.8	60	25.2
4	0.13	24	4.1	65	29.5
5	0.19	25	4.5	70	34.2
6	0.27	26	4.8	75	39.2
7	0.37	28	5.6	80	44.6
8	0.48	30	6.4	85	50.3
10	0.73	32	7.3	90	56.4
12	1.1	35	8.7	100	69.6
13	1.3	36	9.2	110	84.1
14	1.5	40	11.3	120	100.1
15	1.7	42	12.4	130	117.4
16	1.9	45	14.2	140	136.1
18	2.4	50	17.5	150	156.2
20	2.9	55	21.2	160	177.6
22	3.5				

The weights stated in the table are theoretically calculated with a density of 8.8 g/cm³ and without obligation.

! Tubes, flat-, square- and hexagonal bars are available on request.

TECHNICAL DATA SHEET

CuAl10Fe5Ni5 acc. to DIN EN 1982 (CC333G)

Material	Composition in %	Density around g/cm ³	Mech. Properties	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)	Brinell Hardness (HB)
CuAl10 Fe5Ni5-C	Cu 76.0-83.0 Al 8.5-10.5 Fe 4.0-5.5 Ni 4.0-6.0	7.6	Centrifugal Continuous	650	280	13	150

Characteristics: High loaded parts in terms of strength and corrosion resistance. Resistant to cold and warm seawater. Very good weldable and therefore also suitable for mixed constructions.

Use: Mechanically and chemically stressed parts in mechanical engineering. Bearings in industrial furnaces. Components for food processing machinery. Material for non-sparkling tools. Highly stressed bearings and worm gears.

Remark: Moderate to severe machinability. Due to the poor emergency running properties CuAl10Fe5Ni5-C should only be used with proper lubrication.

Comparable specification: **C95800**

CuAl11Fe6Ni6 acc. to DIN EN 1982 (CC334G)

Material	Composition in %	Density around g/cm ³	Mech. Properties	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)	Brinell Hardness (HB)
CuAl11Fe6 Ni6-C	Cu 72.0-82.5 Al 10.0-12.0 Fe 4.0-7.0 Ni 4.0-7.5	7.6	Centrifugal Casting	750	380	5	185

Characteristics: Comparable to CuAl10Fe5Ni5, but with higher expectations on the cavitation and / or wear resistance.

Use: This material is suitable for mechanical and chemical stressed parts in the mechanical industry. Bearings in industrial furnaces. Components for food processing machinery. Material for non-sparkling tools. Highly stressed bearings and worm gears.

Remark: Moderate to severe machinability. Due to the poor emergency running properties CuAl11Fe6Ni6-C should only be used with proper lubrication.

CuAl10Ni5Fe4 acc. to DIN EN 12163/ 12165 (CW307G)

Material	Composition in %	Density around g/cm ³	Mech. Properties	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)	Brinell Hardness (HB)
CuAl10 Ni5Fe4	Cu Rest Al 8.5-11.0 Fe 3.0-5.0 Ni 4.0-6.0	7.6	drawn (R740S) pressed, M	740	400	8	

Characteristics: High stability even at high temperatures, good corrosion resistance. Good resistance against scaling, erosion and cavitation. Resistant to neutral, acidic, watery mediums and sea-water. Good hot working properties.

Use: High-strength, wear resistant parts in the engine and gear construction. Screws, bolts and nuts, shafts, worm wheels and gears.

Remark: Moderate machinability.

Comparable specification: **C63200**

CuSn8 or CuSn8P acc. to DIN EN 12163/12165

Material	Composition in %	Density around g/cm ³	Mech. Properties	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)	Brinell Hardness (HB)
CW453K CW459K	P 0.01-0.4 (453K) P 0.2-0.4 (459K) Sn 7.5-8.5 Cu Rest	8.8	drawn, M pressed, M				

Characteristics: Very good corrosion resistance and high strength properties. Very good sliding properties and wear resistance.

Use: Highly-stressed sliding elements (especially thin-walled bearings), sliding guides. Highly stressed worm gears and gear wheels, bolts and screws.

Remark: Moderate to severe machinability depending on the state of resistance.

Comparable specification: **C52100**

COPPER



COPPER

● ROUND BARS E-Cu – CW004A

Dimension Ø mm	Weight kg/m	Dimension Ø mm	Weight kg/m	Dimension Ø mm	Weight kg/m
3	0.06	24	4.1	70	34.3
4	0.11	25	4.4	75	39.4
5	0.17	26	4.8	80	44.8
6	0.25	28	5.5	90	56.7
7	0.34	30	6.3	100	70.0
8	0.45	32	7.2	110	84.6
10	0.70	35	8.6	120	100.7
11	0.85	36	9.1	130	118.2
12	1.01	40	11.2	140	137.1
13	1.18	42	12.4	150	157.3
14	1.37	45	14.2	160	179.0
15	1.6	50	17.5	170	202.1
16	1.8	55	21.2	180	226.5
18	2.3	60	25.2	200	279.7
20	2.8	65	29.6	210	308.3
22	3.4				

The weights stated in the table are theoretically calculated with a density of 8.9 g/cm³ and without obligation.

■ SQUARE BARS E-Cu – CW004A

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
5 x 5	0.22	20 x 20	3.56	50 x 50	22.25
6 x 6	0.32	25 x 25	5.56	60 x 60	32.04
8 x 8	0.57	30 x 30	8.01	70 x 70	43.61
10 x 10	0.89	35 x 35	10.90	80 x 80	56.96
12 x 12	1.28	40 x 40	14.24	100 x 100	89.00
15 x 15	2.00	45 x 45	18.02		

In manufacturing lengths of around 4,000 mm. The weights stated in the table are theoretically calculated with a density of 8.9 g/cm³ and without obligation.

i Electrode copper, CuCrZr/CuCoBe/CuTeP
Round-, flat- and square bars are available on request.

■ FLAT BARS E-Cu – CW004A

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
8 x 3	0.21	30 x 5	1.4	60 x 6	3.20
10 x 2	0.18	6	1.7	8	4.27
3	0.27	8	2.2	10	5.34
4	0.36	10	2.7	12	6.41
5	0.45	12	3.3	15	8.01
12 x 2	0.21	15	4.01	20	10.68
3	0.32	20	5.34	25	13.35
4	0.43	35 x 3	0.93	30	16.02
5	0.53	5	1.56	40	21.36
10	1.07	15	4.67	70 x 30	18.69
15 x 2	0.27	20	6.23	80 x 5	3.56
3	0.40	40 x 3	1.07	6	4.27
4	0.53	4	1.42	10	7.12
5	0.67	5	1.78	15	10.68
8	1.07	6	2.14	20	14.24
10	1.34	8	2.85	25	17.80
16 x 4	0.57	10	3.56	30	21.36
20 x 2	0.36	12	4.27	40	28.48
3	0.53	15	5.34	100 x 5	4.45
4	0.71	20	7.12	8	7.12
5	0.89	25	8.90	10	8.90
6	1.1	30	10.68	12	10.68
8	1.5	50 x 3	1.34	15	13.35
10	1.8	4	1.78	20	17.80
12	2.2	5	2.23	25	22.25
15	2.7	6	2.67	30	26.70
25 x 2	0.5	8	3.56	40	35.60
3	0.7	10	4.45	50	44.50
4	0.9	12	5.34	120 x 10	10.68
5	1.2	15	6.68	15	16.02
6	1.4	20	8.90	20	21.36
8	1.8	25	11.13	30	32.04
10	2.3	30	13.35	40	42.72
15	3.4	40	17.80	150 x 10	13.35
30 x 2	0.6	60 x 3	1.60	160 x 10	14.24
3	0.9	4	2.14	15	21.36
4	1.1	5	2.67	200 x 10	17.80

In manufacturing lengths of around 4,000 mm. The weights stated in the table are theoretically calculated with a density of 8.9 g/cm³ and without obligation.

÷ SHEETS SF-Cu – CW024A

semi-hard

Format mm	Thickness mm	Sheet Weight kg	Format mm	Thickness mm	Sheet Weight kg
2,000 x 1,000	0.5	8.9	2,000 x 1,000	3.0	53.4
	0.6	10.7		4.0	71.2
	0.7	12.5		5.0	89.0
	0.8	14.3		6.0	106.8
	1.0	17.8		2,500 x 1,250	0.7
1.5	26.7	1.0	27.9		
2.0	35.6	1.5	41.8		
2.5	44.5	2.0	55.7		

The weights stated in the table are theoretically calculated with a density of 8.9 g/cm³ and without obligation.

≡ PLATES SE-Cu – CW021A

as rolled

Format mm	Thickness mm	Sheet Weight kg	Format mm	Thickness mm	Sheet Weight kg
3,020 x 1,520	6.0	265.6	3,020 x 1,520	40.0	1,675.1
	8.0	347.3		45.0	1,879.4
	10.0	429.0		50.0	2,083.6
	12.0	531.2	3,020 x 1,020	60.0	1,672.4
	15.0	653.7	2,020 x 1,020	70.0	1,302.0
	20.0	858.0	80.0	1,485.4	
	25.0	1,062.3	100.0	1,852.1	
	30.0	1,266.5	2,000 x 600	130.0	1,399.1
	35.0	1,470.8	150.0	1,612.7	

The weights stated in the table are theoretically calculated with a density of 8.9 g/cm³ and without obligation.

! Round tubes SF-Cu – CW024A are available on request.

TECHNICAL DATA SHEET

Cu-ETP DIN EN 13601 (CW004A)

Material	Composition in %	Density around g/cm ³	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)
Cu-ETP	Cu min. 99.90 Bi max. 0.005 O max. 0.040 Pb max. 0.005	8.9	250	180	15

Characteristics: Oxygenic copper with high conductivity for heat and electricity. Due to the oxygen content, no requirements can be made for the brazability and weldability.

Use: Use when high electrical conductivity is required. Electrical engineering, mechanical engineering.

Remark: Moderate to severe machinability.

Comparable specification: E-Cu 2.0060

Cu-DHP DIN EN 1652 (CW024A, R240)

Material	Composition in %	Density around g/cm ³	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)
Cu-DHP	Cu Min. 99.90 P 0.015-0.040	8.9	240-260	Max. 180	8

Characteristics: Deoxidised copper with limited high residual phosphorous, which has a hydrogen resistance and has very good welding and hardsoldering properties.

Use: Machine- and apparatus construction, roof and wall coverings, medicine.

Remark: Moderate to severe machinability.

(These data refer to sheets in condition R240).

Comparable specification: SF-Cu

Cu-HCP DIN EN 13599 (CW021A)

Material	Composition in %	Density around g/cm ³	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)
Cu-HCP CW021A R220	Cu Min. 99.95 P 0.002-0.007	8.9	220-260	Max. 140	42

Characteristics: Desoxidised and highly purified copper with a low residual phosphorous content which has a high conductivity for electricity and heat. Very good weldability, solderability and hydrogen resistance.

Use: Components for electronic and electrical engineering as well as plating material.

Remark: Moderate to severe machinability.

(These data relate to plates).

Comparable specification: SE-Cu



GREY CAST IRON / SPHEROIDAL CAST IRON

GREY CAST IRON /
SPHEROIDAL C. IRON

● ROUND BARS EN-GJL-250C, EN-GJS-400-15C

Dimension Ø mm	Weight kg/m	Dimension Ø mm	Weight kg/m	Dimension Ø mm	Weight kg/m
20	2.4	105	64.0	250	361.0
25	3.7	110	70.0	260	391.0
30	5.3	115	77.0	270	421.0
35	7.1	120	84.0	280	453.0
40	9.3	130	98.0	290	483.0
45	11.7	140	114.0	300	520.0
50	14.5	150	130.0	310	555.0
55	17.5	160	148.0	320	592.0
60	21.0	170	167.0	350	703.0
65	24.5	180	188.0	370	785.0
70	28.5	190	209.0	380	828.0
75	32.5	200	231.0	400	918.0
80	37.0	210	255.0	410	964.0
85	42.0	220	280.0	420	1,012.0
90	47.0	230	306.0	430	1,061.0
95	52.5	240	333.0	450	1,162.0
100	58.0				

The weights stated in the table are theoretically calculated with a density of 7.3 g/cm³ and without obligation.

! Round bars and tubes up to 1,000 mm Ø are available on request.

■ SQUARE BARS EN-GJL-250C, EN-GJS-400-15C

Dimension mm	Weight kg/m	Dimension mm	Weight kg/m	Dimension mm	Weight kg/m
30 x 30	6.6	70 x 70	36.0	140 x 140	143.5
40 x 40	12.0	80 x 80	47.0	150 x 150	164.5
45 x 45	15.0	90 x 90	59.5	160 x 160	187.0
50 x 50	18.5	100 x 100	73.0	170 x 170	211.0
55 x 55	22.0	110 x 110	88.5	180 x 180	237.0
60 x 60	26.5	120 x 120	105.5	200 x 200	292.0
65 x 65	31.0	130 x 130	123.5	210 x 210	323.0

The weights stated in the table are theoretically calculated with a density of 7.3 g/cm³ and without obligation.

! Round-, flat-, square bars and tubes are also available in EN-GJS-500-7C and EN-GJS-600-3C.

TECHNICAL DATA SHEET

EN- GJL- 250C acc. to DIN EN 16482

Material	Composition in %	Density around g/cm ³	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)	Material No.
Cont. Casting 50-100 Ø	Acc. to Manufacturer Specifications	7.3	180			5.1203
Cont. Casting 100-200 Ø			165			
Cont. Casting 200-400 Ø			155			

Machining allowances have to be considered according to table B.1 from DIN EN 16482 (if necessary, please contact us).

Characteristics: Fine-grained dense structure, uniform lamellar graphite distribution, oil- and pressure-tight.

Use: Brake discs, bearings, spindle carriers, lapping wheels.

Remark: Very good machinability.

EN-GJS-400-15C acc. to DIN EN 16482

Material	Composition in %	Density around g/cm ³	Tensile Strength Rm (Mpa)	Yield Point Rp 0.2 (Mpa)	Elongation A (%)	Material No.
Cont. Casting 20-60 Ø	Acc. to Manufacturer Specifications	7.3	400	250	15	5.3126
Cont. Casting 60-120 Ø			390	250	14	
Cont. Casting 120-400 Ø			370	240	11	

Machining allowances have to be considered according to table B.1 from DIN EN 16482 (if necessary, please contact us).

Characteristics: Fine grained dense structure, with spherical graphite shape, high strengths and elongation figures.

Use: Crankshafts, precision chucks, flywheels, gears.

Remark: Very good machinability.

KIGEMA GROUP

KIGEMA Sp. z o.o.

53-609 Wrocław, Fabryczna Street 10, Poland

www.kigema.com | info@kigema.com

+48 71 356 54 79 | Headquarters
+48 71 356 52 22 | CNC Machining

Sales department:
sales@kigema.com | cnc@kigema.com

KIGEMA GROUP COMPANIES

Hohenlimburger Handelsgesellschaft mbH

Spannstiftstr. 16, 58119 Hagen,
Germany

www.hohenlimburger-metallguss.de
kontakt@hohenlimburger-metallguss.de

Phone: +49 / 23 34 / 44 528 11
Fax: +49 / 23 34 / 44 528 29

Heinrich Brinkmann Federn und Drahtwaren GmbH

Spannstiftstr. 16, 58119 Hagen, Germany
Postfach 60 01 08, 58137 Hagen

www.brinkmann-federn.de
kontakt@brinkmann-federn.de

Phone: +49 / 0 23 34 / 44 528 22
Fax: +49 / 0 23 34 / 44 528 25