

Stock Sizes



Round rods



Size	Weight approx. kg/m (applicable to density 8.9)	Elmedur® X CuCr1Zr CW106C 2.1293 C18150	Elmedur® XS CuCr1Zr CW106C 2.1293 C18150	Elmedur® NCS CuNi2SiCr ~ CW111C ~ 2.0855 C18000	Elmedur® HA CuCo1Ni1Be CW103C ~ 2.1285 ~ C17500	Elmedur® B2 CuBe2 CW101C 2.1247 C17200
6	0.25	x			x	
8	0.45	x			x	
10	0.70	x	x		x	
12	1.01	x	x		x	x
12.5	1.10	x				
12.7	1.12	x				
13	1.2	x			x	
14	1.4	x	x		x	
15	1.6	x			x	
16	1.8	x	x		x	x
18	2.3	x	x		x	x
19	2.5	x			x	
20	2.8	x	x		x	x
21	3.1	x				
22	3.4	x			x	
24	4.0	x				
25	4.4	x			x	x
26	4.7	x			x	
27	5.1	x				
28	5.5	x			x	
30	6.3	x			x	x
32	7.2	x			x	
35	8.6	x		x ¹⁾	x	x
36	9.1	x			x	
37	9.6	x				
38	10.1	x				
40	11.2	x		x ¹⁾	x	x
42	12.3	x				
45	14.1	x		x ¹⁾	x	x
47	15.4	x				
50	17.5	x		x ¹⁾	x	x
52	18.9	x			x	
55	21.1	x		x ¹⁾	x ¹⁾	
60	25.2	x		x ¹⁾	x ¹⁾	x
65	29.5	x		x ¹⁾	x ¹⁾	
70	34.2	x		x ¹⁾	x ¹⁾	x

¹⁾ for finished size

Round rods



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75	39.3	x		x ¹⁾	x ¹⁾	
80	44.7	x		x ¹⁾	x ¹⁾	x
85	50.5	x		x ¹⁾	x ¹⁾	
90	56.6	x		x ¹⁾	x ¹⁾	x
95	63.1	x		x ¹⁾	x ¹⁾	
100	69.9	x		x ¹⁾	x ¹⁾	x
105	77.0			x ¹⁾	x ¹⁾	
110	84.5			x ¹⁾	x ¹⁾	
115	92.4			x ¹⁾	x ¹⁾	
120	100.6	x		x ¹⁾	x ¹⁾	x
125	109.2			x ¹⁾	x ¹⁾	
130	118.1	x		x ¹⁾	x ¹⁾	
135	127.3	x		x ¹⁾	x ¹⁾	x
140	136.9			x ¹⁾	x ¹⁾	
145	146.9			x ¹⁾	x ¹⁾	
150	157.2	x		x ¹⁾	x ¹⁾	x
155	167.9			x ¹⁾		
160	178.9			x ¹⁾	x ¹⁾	
165	190.2			x ¹⁾		
170	201.9			x ¹⁾	x ¹⁾	
175	214.0			x ¹⁾		
180	226.4	x		x ¹⁾		
185	239.1			x ¹⁾		
190	252.2			x ¹⁾		
195	265.7			x ¹⁾		
200	279.5	x		x ¹⁾	x ¹⁾	
205	293.6			x ¹⁾		
210	308.1	x		x ¹⁾		

¹⁾ for finished size

Rectangular bars

Size	Weight approx. kg/m (applicable to density 8.9)	Elmedur® X CuCr1Zr CW106C 2.1293 C18150	Elmedur® HA CuCo1Ni1Be CW103C ~ 2.1285 ~ C17500
4 x 15	0.5	x	
5 x 25	1.1	x	
6 x 60	3.2	x	
8 x 20	1.4	x	
8 x 25	1.8	x	
8 x 40	2.8	x	
10 x 20	1.8	x	x
10 x 25	2.2	x	
10 x 30	2.7	x	x
10 x 40	3.6	x	x
10 x 50	4.5	x	
10 x 80	7.1	x	
10 x 100	8.9	x	
12 x 40	4.3	x	
15 x 20	2.7	x	
15 x 25	3.3	x	x
15 x 30	4.0	x	x
15 x 40	5.3	x	x
15 x 50	6.7	x	x
15 x 60	8.0	x	x
15 x 70	9.3	x	
20 x 25	4.5		x
20 x 30	5.3	x	x
20 x 35	6.2		x
20 x 40	7.1	x	x
20 x 45	8.0		x
20 x 50	8.9	x	x

Size	Weight approx. kg/m (applicable to density 8.9)	Elmedur® X CuCr1Zr CW106C 2.1293 C18150	Elmedur® HA CuCo1Ni1Be CW103C ~ 2.1285 ~ C17500
20 x 60	10.7	x	x
20 x 70	12.5	x	x
20 x 80	14.2	x	x
20 x 100	17.8	x	x
25 x 30	6.7	x	
25 x 38	8.5		x
25 x 40	8.9	x	x
25 x 50	11.1	x	x
25 x 60	13.4	x	x
25 x 80	17.8	x	
30 x 40	10.7	x	x
30 x 50	13.4	x	x
30 x 60	16.0	x	x
30 x 70	18.7	x	x
30 x 80	21.4	x	x
30 x 85	22.7	x	
30 x 100	26.7	x	x
40 x 50	17.8	x	x
40 x 60	21.4	x	x
40 x 80	28.5	x	
40 x 100	35.6	x	x
45 x 60	24.0	x	
50 x 80	35.6	x	
50 x 100	44.5	x	x
50 x 150	66.8	x	
60 x 120	64.1	x	

Square bars



Size	Weight approx. kg/m (applicable to density 8.9)	Elmedur® X CuCr1Zr CW106C 2.1293 C18150	Elmedur® HA CuCo1Ni1Be CW103C ~ 2.1285 ~ C17500
10 x 10	0.9	x	x
13 x 13	1.5		x
15 x 15	2.0	x	
16 x 16	2.3	x	x
20 x 20	3.6	x	x
25 x 25	5.6	x	x
30 x 30	8.0	x	x
32 x 32	9.1	x	x
40 x 40	14.2	x	x
50 x 50	22.3	x	x
60 x 60	32.0	x	x
70 x 70	43.6	x	
80 x 80	57.0	x	
100 x 100	89.0	x	x
130 x 130	150.4	x	

Hexagonal bars



Size	Weight approx. kg/m (applicable to density 8.9)	Elmedur® X CuCr1Zr CW106C 2.1293 C18150	Elmedur® HA CuCo1Ni1Be CW103C ~ 2.1285 ~ C17500
SW 12	1.17	x	
SW 14	1.51	x	
SW 17	2.22	x	
SW 19	2.78	x	x
SW 22	3.73	x	
SW 24	4.44	x	x
SW 27	5.83	x	x
SW 30	6.94	x	
SW 36	9.99	x	x

Sheets, plates



Thickness	Elmedur® X CuCr1Zr CW106C 2.1293 C18150	Elmedur® HA CuCo1Ni1Be CW103C ~ 2.1285 ~ C17500	Elmedur® NCS CuNi2SiCr ~ CW111C ~ 2.0855 C18000	Elmedur® B2 CuBe2 CW101C 2.1247 C17200
10	x		on request	on request
12	x		on request	on request
16	x		on request	on request
20	x		on request	on request
22	x		on request	on request
25	x		on request	on request
30	x	x	on request	on request
35	x		on request	on request
40	x	x	on request	on request
45	x	x	on request	on request
50	x	x	on request	on request
55	x	x	on request	on request
60	x	x	on request	on request
65	x	x	on request	on request
70	x	x	on request	on request
75		x	on request	on request
80	x	x	on request	on request
85		x	on request	on request
100	x	x	on request	on request
120		x	on request	on request

ELMEDUR® materials	Elmedur® X	Elmedur® XS	Elmedur® NCS	Elmedur® HA	Elmedur® B2	
Designation EN standards	CuCr1Zr	CuCr1Zr	CuNi2SiCr	CuCo1Ni1Be	CuBe2	
Material No. EN standards	CW106C	CW106C	CW111C	CW103C	CW101C	
DIN material No.	2.1293	2.1293	~ 2.0855	~ 2.1285	2.1247	
Material No. UNS system	C18150	C18150	C18000	~ C17500	C17200	
Mechanical properties (reference values at 20°C)						
Brinell hardness	HB 30	150	160	210	240	350
Tensile strength	N/mm ²	380 – 470	430 – 530	650 – 750	720 – 820	1200 – 1300
0.2 % proof strength	N/mm ²	320 – 410	350 – 470	500 – 650	660 – 740	950 – 1050
Elongation A 5	%	14 – 18	15 – 22	10 – 14	10 – 14	2 – 5
Modulus of elasticity	N/mm ²	125 x 10 ³	130 x 10 ³	140 x 10 ³	135 x 10 ³	135 x 10 ³
Softening temperature	°C	500	480	480	480	300
Physical properties (reference values at 20°C)						
Density	g/cm ³	8.9	8.9	8.8	8.8	8.3
Thermal conductivity	W/mK	320	320	200	250	120
Electrical conductivity	%IACS	79 (46 MS/m)	79 (46 MS/m)	38 (22 MS/m)	48 (28 MS/m)	26 (15 MS/m)
Coefficient of expansion 20 – 300°C		17.0 x 10 ⁻⁶ /K	17.0 x 10 ⁻⁶ /K	16.2 x 10 ⁻⁶ /K	17.2 x 10 ⁻⁶ /K	17.0 x 10 ⁻⁶ /K

Note:

Refractory metals

Molybdenum / TZM

Tungsten

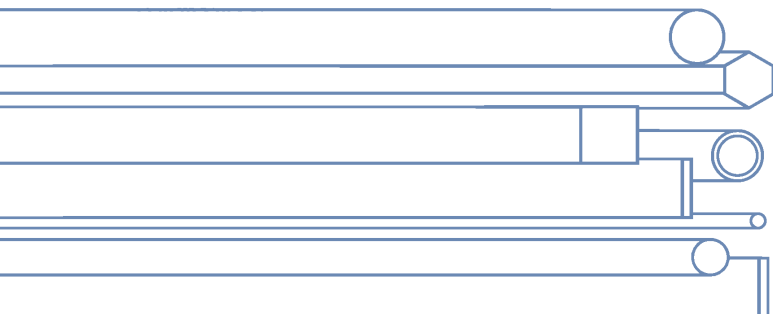
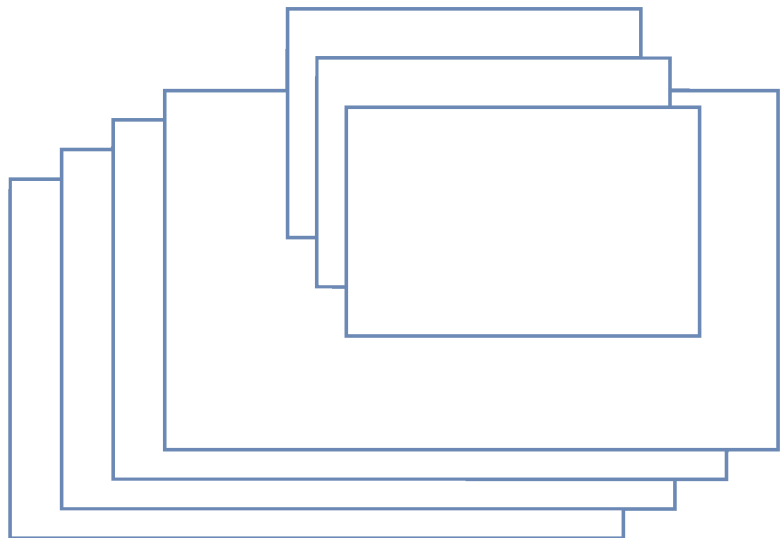
Tantalum

Tungsten-copper

Heavy metal

Titanium

Further materials on request





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