

SIMILAR SPECIFICATIONS						NOMINAL CHEMISTRY						MECHANICAL PROPERTIES						
METALTEK GRADE	CAST UNS	CAST GRADE	CAST ASTM	MILITARY	OTHER	WROUGHT UNS	COPPER	ALUM	IRON	NICKEL	MANG.	OTHER	TENSILE, MIN ksi	[MPa]	YIELD, MIN ksi	[MPa]	ELONGATION MIN (%)	3000 KG MIN TYP.
ALUMINUM BRONZE																		
MTEK 125	C95200	C95200	B271, B505, B148	MIL-B-16833CL1			88	9	3				65	[450]	25	[170]	20	110 143
MTEK 150	C95220	C95220					BAL	10	3.5	2.5 MAX			70	[485]	28	[195]	20	150 163
MTEK 175	C95400	C95400	B271, B505, B148		AMS 4870C ^c		85	11	4				75	[515]	30	[205]	12	150 183
MTEK 175-B	C95410	C95410	B271, B505, B148		AMS 4871B ^c		85	11	4				90	[620]	50	[345]	5	217
MTEK 175-C	C95400HT	C95400HT	B271, B505, B148	MIL-C-15345-13			85	11	4				90	[620]	45	[310]	6	175 192
MTEK 175 LOW IRON	C95300	C95300	B271, B505, B148				89	10	1				65	[450]	25	[170]	20	110 167
MTEK 230	C95500	C95500	B271, B505, B148				81	11	4	4			90	[620]	40	[275]	6	190 212
MTEK 230-B	C95500HT	C95500HT	B271, B505, B148	MIL-C-15345-14	AMS 4880 ^d		81	11	4	4			110	[760]	60	[415]	5	200 229
MTEK 230-N	C95800	C95800	B271, B505, B148	MIL-B-24480 MIL-C-15345-28	ABS-4		81	9	4	5	1		85	[585]	35	[240]	15	175
MTEK 275	C95900	C95900	B271, B505, B148				BAL	13	4.5				75	[515]	50	[345]	1	248 255
MTEK 325							BAL	14	5	1								302 321
MTEK 375							BAL	14.5	5.5			PLUS PROPRIETARY ELEMENTS	SPECIAL DIE ALLOYS NORMALLY SPECIFIED FOR HARDNESS					341 352
METALTEK GRADE	CAST UNS	CAST GRADE	CAST ASTM	MILITARY	OTHER		COPPER	TIN	LEAD	ZINC	NICKEL	OTHER	TENSILE, MIN ksi	[MPa]	YIELD, MIN ksi	[MPa]	ELONGATION MIN (%)	500 KG TYP.
GEAR BRONZE																		
MTEK 65	C90700	C90700	B427, B505		SAE 65 ⁱ		88.8	11				Phos. 0.2	35	[240]	18	[125]	10	102
MTEK 65+Ni	C91600	C91600	B427	MIL-C-15345-23			88	10.5			1.50	Phos. 0.2	45	[310]	25	[170]	10	106
MTEK 87-11-1-0-1	C92500	C92501	B505				87	11	1		1		40	[275]	24	[165]	10	
AGMA CL A	C90800	C90800	B427, B505				87.8	12				Phos. 0.2	50	[345]	28	[145]	12	95
AGMA CL B	C91700	C91700	B427				86.5	12			1.50	Phos. 0.2	50	[345]	28	[145]	12	106
MTEK 102-N	C92900	C92900	B427, B505				83.5	10	2.8		3.50	Phos. 0.2	45	[310]	25	[170]	8	80
BEARING BRONZE																		
MTEK 85-5-5-5	C83600	C83600	B271, B62, B584	MIL-C-15345-14	SAE 40 ⁱ		85	5	5	5			30	[205]	14	[95]	20	70
MTEK 83-7-7-3	C93200	C93200	B271, B505, B584	MIL-C-15345-12	SAE 660 ⁱ		83	7	7	3			30	[205]	14	[95]	15	70
MTEK 80-10-10	C93700	C93700	B271, B22, B584		SAE 64 ⁱ		80	10	10				30	[205]	12	[80]	15	70
MTEK 78-7-15 HI LEAD	C93800	C93800	B271, B66, B584		SAE 67 ⁱ		78	7	15		.75 max		26	[180]	14	[95]	12	60
MTEK 79-6-15 HI LEAD	C93900	C93900	B66				79	6	15				25	[170]	16	[110]	5	60
MTEK 76-6-18 HI LEAD	C94100	C94100	B66				76	6	18				25	[170]	16	[110]	5	60
BEARIUM® B-4							70	4	26				21.5	[150]	11	[75]	16	40
BEARIUM® B-8							70	8	22				24	[165]	14	[95]	12	50
BEARIUM® B-10							70	10	20				25.5	[175]	14.75	[100]	10	55
BEARIUM® B-11							70	10	18		1.50		30	[210]	16	[110]	8	60
NAVY M	C92200	C92200	B271, B61, B584	MIL-C-15345-9	SAE 622 ⁱ		88	6	1.5	4.50			34	[235]	16	[110]	24	65
NAVY G	C90300	C90300	B271, B584	MIL-C-15345-8	SAE 620 ⁱ		88	8		4			40	[275]	18	[125]	20	80
NAVY G 1% LEAD	C92300	C93200	B271, B584	MIL-C-15345-10	SAE 621 ⁱ		87	8	1	4			36	[250]	16	[110]	18	75
NICKEL-SILVER																		
MTEK 12% Ni 410	C97300	C97300	B271, B584	MIL-C-15345-7			65	2	6	15	12		34	[235]	17.5	[120]	25	70
MTEK 20% Ni 412	C97600	C97600	B271, B584	MIL-C-17112			64	4	4	8	20		40	[275]	17	[115]	10	90
METALTEK GRADE	CAST UNS	CAST GRADE	CAST ASTM	MILITARY	OTHER		COPPER	ALUM.	IRON	MANG.	ZINC	OTHER	TENSILE, MIN ksi	[MPa]	YIELD, MIN ksi	[MPa]	ELONGATION MIN (%)	3000 KG TYP.
MANGANESE BRONZE																		
LOW TENSILE	C83650	C83650	B271, B584, B148	MIL-C-15345-4	SAE 43 ⁱ		58	1	1	1	39		65	[450]	25	[170]	20	149
MED. TENSILE	C86200	C86200	B271, B584, B148	MIL-C-15345-5	SAE 430A ⁱ		63	4	3	3	27		90	[620]	45	[310]	18	192
HIGH TENSILE	C86300	C86300	B271, B584, B148	MIL-C-15345-6	SAE 430B ⁱ		63	6	3	3	25		110	[760]	60	[415]	12	229
LEADED MANGANESE	C86400	C86401	B271, B505, B148				58	1	1	0.50	38	Fe 1.0, Al 0.5	60	[400]	20	[140]	15	
HIGH CONDUCTIVE																		
COPPER	C81100	C81100					99.7 MIN											
SILVER COPPER	C11600	C11600					99.9 MIN					Ag .085 MIN.	34	[235]	30	[205]	20	79@500
CHROME ZIRC COPPER	C18100	C18100					98.45 MIN					Cr .60 - .80 Zr .10 - .15	60	[415]	50	[345]	25	Typ. properties by forging
CHROME COPPER	C81500	C81500		MIL-C-19310			BAL					Cr 0.4 - 1.5	45	[310]	35	[240]	12	89
COPPER NI SI	C81540	C81540					BAL					Cr .10 - .60 Ni 2 - 3 Si .40 - .80 + Zr	80	[550]	65	[450]	15	192
SPECIAL ALLOYS																		
IN ADDITION TO THE ALLOYS LISTED WE PRODUCE CUSTOM ALLOYS TO MEET YOUR SPECIFICATIONS.																		

Consult with individual specifications for respective chemical and mechanical properties.

Aluminum Bronze heat treated to higher mechanical properties where necessary.

(1) For cross-reference only, specification discontinued.