



## Silicon Bronze Casting Chemical Composition

The silicon bronze chemical composition is given in the following table.

Copper Alloys	CU	SN	PB	ZN	FE	NI	MN	AL	SI
Standard ASTM : C63400	Rem.	0.2	0.05	0.5	0.15	0.15	-	2.6 - 3.2	0.25 - 0.45
Standard ASTM : C63600	Rem.	0.2	0.05	0.5	0.15	0.15	-	3 - 4	0.7 - 1.3
Standard ASTM : C63800	Rem.	-	0.05	0.8	0.2	0.2	0.1	2.5 - 3.1	1.5 - 2.1
Standard ASTM : C64200	Rem.	0.2	0.05	0.5	0.3	0.25	0.1	6.3 - 7.6	1.5 - 2.2
Standard ASTM : C64210	Rem.	0.2	0.05	0.5	0.3	0.25	0.1	6.3 - 7.0	1.5 - 2.0
Standard ASTM : C87300	94 Min.	-	0.2	0.25	0.2	-	0.8 - 1.5	-	3.5 - 5.0
Standard ASTM : C87600	88 Min.	-	0.5	4.0 - 7.0	-	-	-	-	3.5 - 5.5
Standard ASTM : C87610	90 Min.	-	0.2	3.0 - 5.0	-	-	-	-	3.0 - 5.0
Standard ASTM : C95600	88 Min.	-	-	-	-	0.25	-	6 - 8	1.8 - 3.2
Standard IS : 1028-1987	89 Min.	1.0	0.5	5.0	2.5	-	1.5	1.5	1 - 5

## Silicon Bronze Casting Mechanical Properties

The silicon bronze mechanical properties are given in the following table.

Copper Alloys	Tensile Strength (Min.) (MPa)	Elongation % on 5.65√S <sub>0</sub> (Min.)
Standard ASTM : C63400	550	30
Standard ASTM : C63600	530	64
Standard ASTM : C63800	565	33
Standard ASTM : C64200	700	32
Standard ASTM : C64210	620	30
Standard ASTM : C87300	310	20
Standard ASTM : C87600	414	16
Standard ASTM : C87610	310	20
Standard ASTM : C95600	515	18
Standard IS : 1028-1987	310	20