

STAND/NO / SPECIFICATION

NUMBER

COPPER - ZINC ALLOYS (BRASS)

GOST 1597-70

PRESSURE TREATED TYPES

SUMMARY OF
GOST

1019-67

800 1 OF 5

The present standard describes copper-zinc alloys, pressure treated, used for making semifinished products.

1. Name, mark, chemical composition and designation of alloys should correspond to the table indicated below :

Contd...../-

APPROVED	24/10/72	(M/T)	MATL. SPECIM.		
INCHARGE / GR. INCHARGE	Reproduced from book reads ITOM 11/10/72		PICAT TREAT		
CHECKED	Division.		FINISH		
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STANDARD.

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SUPERSEDES :
COST 1019-47

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Name of the alloys		Chemical composition in %.																					
		Basic elements.										Admix.											
Mark.	Copper	Lead	Iron	Manganese	Aluminium	Tin	Silicon	Nickel	Arsenic	Zinc	Lead	Iron	Antimony	Bismuth	Phosphorus	Manganese	Arsenic	Tin	Sulphur	Aluminium	Total	Particulate	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
Tombac	96	95.0-97.0	-	-	-	-	-	-	-	-	-	0.3	0.10	0.005	0.002	0.01	-	-	-	-	-	0.2	For manufacture of bands, strip and tubes.
Tombac	90	88.0-91.0	-	-	-	-	-	-	-	-	-	0.03	0.10	0.005	0.002	0.01	-	-	-	-	-	0.2	For manufacture of sheets, bands and strips.
Semi-tombac	85	84.0-86.0	-	-	-	-	-	-	-	-	-	0.03	0.10	0.005	0.002	0.01	-	-	-	-	-	0.3	For manufacture of sheets, bands, strips & tubes.
Semi-tombac	80	79.0-81.0	-	-	-	-	-	-	-	-	-	0.03	0.10	0.005	0.002	0.01	-	-	-	-	-	0.3	For manufacture of sheets, bands, strips and wires.
Brass	70	59.0-72.0	-	-	-	-	-	-	-	-	-	0.03	0.07	0.002	0.002	0.005	-	0.005	0.005	0.002	-	0.2	For manufacture of bands and strips.
Brass	68	67.0-70.0	-	-	-	-	-	-	-	-	-	0.03	0.10	0.005	0.002	0.01	-	-	-	-	-	0.3	For manufacture of sheets, bands, strips, tubes, bars, wires.
Brass	63	62.0-65.0	-	-	-	-	-	-	-	-	-	0.07	0.2	0.005	0.002	0.01	-	-	-	-	-	0.5	For manufacture of sheets, bands, strip tubes, bars, wire, foil.

Remainings.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	
Brass	60	59.0-62.0											0.30	0.2	0.01	0.003	0.01						1.0	For manu- facture of tubes.
Alumi- nium	77-2	78.0-79.0				1.75-2.50							0.07	0.10	0.005	0.002	0.01						0.5	For manu- facture of tubes.
Brass																								
Alumi- nium	60-1	60.0-61.0			0.75-1.50	0.1-0.6	0.75-1.50						0.40		0.005	0.002	0.01						0.7	For manu- facture of tubes & rods.
Brass																								
Al. Ni. Brass	AM	57.0-59.3-60.0				2.50-3.50			2.0-3.0				0.4	0.50	0.005	0.003	0.01						0.9	For manu- facture of tubes and rods.
Fe. Mn. Brass	M	57.0-59-1-60.0			0.6-1.2	0.5-0.8	0.1-0.4	0.3-0.7							0.01	0.003	0.01						0.25	For manu- facture of strip tubes rods and wires.
Nickel Brass	H	64-5	65.0-67.0						5.0-6.5				0.4	0.15	0.005	0.002	0.01						0.3	For manufa- cture of sheets, bands, tubes, wires.
Manganese Brass	M	58-2	57.0-60.0			1.0-2.0							1.0	0.005	0.002	0.01							1.2	For manufa- cture of sheets, bands, strips, rods, wires.
Manganese Al. Brass	MA	57-3	55.0-58.5			2.5-3.5	0.5-1.5						1.0	0.005	0.002	0.01							1.3	For forg- ings.
Tin Brass		090-1	88.0-91.0					0.25-0.75					0.10	0.005	0.002	0.01							0.2	For band strip wire.
(Brass) Fe		070-1	68.0-71.0					1.0-1.5					0.10	0.003	0.002	0.01							0.3	For tubes.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)			
(Bronze)																										
Tin	052-	61.0-	-	-	-	-	0.7-	-	-	-	-	0.10	0.10	0.005	0.002	0.01	-	-	-	-	-	-	-	0.3	For sheets, bands, tubes, rods.	
Brass	-1	62.0	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(Bronze)																										
Tin	060-	59.0-	-	-	-	-	1.0-	-	-	-	-	0.10	0.10	0.005	0.002	0.01	-	-	-	-	-	-	-	-	1.0	For wires.
Brass	-1	61.0	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	C	62.0-	2.4-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brass	63-3	65.0	3.0	-	-	-	-	-	-	-	-	0.10	0.10	0.005	0.002	0.01	-	-	-	-	-	-	-	-	0.25	For strips, bands, rods, wires.
Lead	C	72.0-	2.4-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brass	74-3	75.0	3.0	-	-	-	-	-	-	-	-	0.10	0.10	0.005	0.002	0.01	-	-	-	-	-	-	-	-	0.25	For bands, strips and rods.
Lead	C	63.0-	1.5-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brass	64-2	66.0	2.0	-	-	-	-	-	-	-	-	0.10	0.10	0.005	0.002	0.01	-	-	-	-	-	-	-	-	0.3	For strips, bands, rods.
Lead	C	59.0-	0.6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brass	60-1	61.0	1.0	-	-	-	-	-	-	-	-	0.15	0.15	0.005	0.002	0.01	-	-	-	-	-	-	-	-	0.5	For rods.
Lead	C	57.0-	0.8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brass	59-1	60.0	1.9	-	-	-	-	-	-	-	-	0.5	0.5	0.010	0.003	0.02	-	-	-	-	-	-	-	-	0.75	For sheets, bands, strips, tubes, rods, wires.
Lead	C	57.0-	0.8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brass	59-1B	61.0	1.9	-	-	-	-	-	-	-	-	0.5	0.5	0.01	0.003	0.02	-	-	-	-	-	-	-	-	1.5	For rods.
Iron	C	56.0-	0.7-	0.7-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	58-1A	58.0	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brass	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silicon	K	79.0-	-	-	-	-	-	2.5-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brass	80-3	81.0	-	-	-	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	M	67.0-	-	-	-	-	-	-	-	-	0.025-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brass	58-	70.0	-	-	-	-	-	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ГОСТ 15527-70

STANDARD.

CZSR - ZINC ALLOYS (CZSR)
 PEROXIDES TREATED TYPES

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 BUREAU OF STANDARDS
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	
Aluminum	64	76.0				1.75				0.025		0.07	0.10	0.005	0.002	0.01							0.3	For tubes
Copper	77	79.0				2.50				0.05														
Nickel	2.0-0.05																							
Iron	0.01	69.0						1.0		0.025		0.07	0.10	0.005	0.002	0.01							0.3	For tubes
Brass	70-1	71.0						1.5		0.05														
Nickel	0.05																							
Brass																								
Aluminum	64	73.0		0.3	1.6		0.3	2.0				0.07	0.10	0.005	0.002	0.01							0.5	For strips
Nickel	75-2	76.0		0.7	2.2		0.7	3.0																0.5
Nickel	2.5																							
Silicon	0.5																							
Manganese	0.5																							
Brass																								

NOTES:

- For antimagnetic alloys, content of iron should not exceed 0.03%.
- The admixtures, not indicated in table, are considered as common admixtures.
- In the brass, mark 68, intended for manufacture of parts for special purpose, content of admixtures should not exceed: Iron - 0.07%, Antimony 0.002%, Phosphorus - 0.05%, Arsenic 0.01%, Sulphur - 0.002% (Total 0.2%).
- In copper-zinc alloys of all marks, except mark 70, 68, 64H, 75-2, 76-2, 75-1 and 76-1, the content of admixture of nickel (not 0.5%, and alloy of mark 68-1 and 68-2) is allowed (due to copper content).
- In brass of mark 65-1, the total admixtures of tin and silicon should not exceed 0.5%.
- In Brass of mark 58-2 as per the customer's requirements the content of manganese is set in the limits of 3.0 to 4.0%.
- In brass of mark 57-3-1 and 58-2, intended for profile castings and blocks for hot treatment (forging), content of phosphorus should not exceed 0.03%.