



## Phosphor Bronze Casting Chemical Composition

Copper Alloys	CU	SN	PB	ZN	FE	NI	P	AL	SI	SB	Impurities
Standard BS: 1400, Grade PB 1	Rem.	10 Min	0.25	0.05	0.10	0.10	0.5 Min	0.01	0.02	-	0.60
Standard BS: 1400, Grade PB 2	Rem.	11 - 13	0.50	0.30	0.15	0.50	0.15 Min	0.01	0.02	-	0.20
Standard BS: 1400, Grade PB 4	Rem.	9.5 Min	0.75	0.50	-	0.50	0.4 Min	-	-	-	0.50
Standard IS: 28-1985, Grade 1	Rem.	6 - 8	0.25	0.50	0.30	0.70	0.3 - 0.5	0.01	0.02	0.10	1.20
Standard IS: 28-1985, Grade 2	Rem.	10 Min	0.25	0.05	0.10	0.10	0.5 Min	0.01	0.02	-	0.60
Standard IS: 28-1985, Grade 3	Rem.	6.5 - 8.5	2 - 5	2.0	-	1.0	0.3 Min	-	-	-	0.50
Standard IS: 28-1985, Grade 4	Rem.	9 - 11	0.25	0.05	-	0.25	0.15	-	-	-	0.80
Standard IS: 28-1985, Grade 5	Rem.	11 - 13.1	0.50	0.30	0.15	0.50	0.15 Min	0.01	0.20	-	0.20

## Phosphor Bronze Casting Mechanical Properties

Copper Alloys	Tensile Strength (Min.)	Elongation % (Min.)	Brinell Hardness (Min.)
Standard BS: 1400, Grade - PB 1	220 Mpa.	3%	70 BHN.
Standard BS: 1400, Grade - PB 2	220 Mpa.	5%	90 BHN.
Standard BS: 1400, Grade - PB 4	230 Mpa.	6%	80 BHN.
Standard IS: 28-1985, Grade - 1	190 Mpa.	3%	60 BHN.
Standard IS: 28-1985, Grade - 2	220 Mpa.	3%	70 BHN.
Standard IS: 28-1985, Grade - 3	190 Mpa.	3%	60 BHN.
Standard IS: 28-1985, Grade - 4	230 Mpa.	6%	80 BHN.
Standard IS: 28-1985, Grade - 5	220 Mpa.	5%	90 BHN.