

# SOME IMPORTANT ALLOYS, THEIR COMPOSITIONS & USES

---

---

1. Alnico	63% Fe, 12%Al, 20%Ni, 5%Co (For making permanent magnets)
2. Alpan	Al + Si
3. Almalgam	Hg + any other metal
4. Bell metal	80%Cu, 20%Sn (bells, utensils, idols, coins etc.)
5. Bearing metal	82%Sn, 14%Sb, 4%Cu
6. Birmabright	5%Mg, 95%Al
7. Brass	Cu + Zn (Household utensils)
8. Britannia metal	93%Sn, 5%Sb, 2%Cu
9. Bronze	75% to 90%Cu, 25% to 10%Sn (coins, idols, bells, utensils etc.)

10.	Constantan	60%Cu, 40%Ni (Electrical apparatus)
11.	Common solder	50%Pb, 50%Sn
12.	Coinage alloy	75%Cu, 25%Ni (For making coins)
13.	Delta metal	Cu + Zn + Fe (Ship's propellers)
14.	Duralumin	94.4%Al, 4%Cu, Mg, Mn, Si (For making air ships, pressure cookers)
15.	Dutch metal	80%Cu, 20%Zn (Golden yellow, cheap ornaments)
16.	Fine solder	56%Sn, 33%Pb
17.	German sliver	60%Cu, 25%Zn, 15%Ni (Utencils)
18.	Gun metal	86%Cu, 10%Sn, 4%Zn (For engineering works)
19.	Invar	63%Fe, 36%Ni, 1%C (Watch pendulum)
20.	Manganin	84%Cu, 12%Mn, 4%Ni
21.	Mangnelium	85% to 99%Al, 1% to 15%Mg (Aeroplane's frame)

22. Monel metal	30%Cu, 70%Ni (For making alkali resistant containers)
23. Munz metal	60%Cu, 40%Zn (coins, tubes, castings)
24. Newtons' metal	Sn + Pb + Bi
25. Nicrome	Cr + Ni + Fe (Heater coil)
26. Pewter	75%Sn, 25%Pb (For metal soldering)
27. Phosphor bronze	85%Cu, 13%Sn, 2%P
28. Plumber's solder	70%Pb, 30%Sn
29. Rolled Gold	90%Cu, 10%Al (Cheap ornaments)
30. Rose's fusible metal	Bi + Pb + Sn (Automatic fuses, M.P. = 83°C)
31. Solder	Sn + Pb (For metal soldering)
32. Stainless steel	73%Fe, 1%C, 18%Cr, 8%Ni (For making automobile parts)
33. Stalloy	Fe + Si
34. Type metal	75%Pb, 20%Sb, 5%Sn (Compositor's Type)

35. Wood's metal	Bi + Pb + Sn + Cd (For automatic fuses M.P. = 60°C)
36. Y-alloy	Cu + Al
37. Amatol	80% $\text{NH}_4\text{NO}_3$ + 20%T.N.T. (explosive)
38. Gun powder	75% $\text{KNO}_3$ , 12%S, 13% Charcoal
39. Rectified spirit	95.6% ethyl alcohol, 4.4% Water
40. Vinegar	10% acetic acid solution