

银钎料牌号及成份

GB/T 10046

| 钎料牌号 GB/T 10046 | 化学成分（质量分数）/ wt% | | | | | | | | 熔化温度范围/°C | |
|---------------------|-----------------|---------------|---------------|----|----------|-------------|----|--------------------|-----------|-----|
| | Ag | Cu | Zn | Cd | Sn /P | Ni | Mn | 其他 | 固相线 | 液相线 |
| Ag-Cu 钎料 | | | | | | | | | | |
| BAg100 | ≥ 99.95 | 0.05 | — | — | — | — | — | — | 961 | 961 |
| BAg50Cu | 49.0~ 51.0 | 余量 | — | — | — | — | — | — | 779 | 872 |
| BAg54PdCu | 53.0~ 55.0 | 余量 | — | — | — | — | — | Pd:24.5 0~25.50 | 900 | 950 |
| BAg58CuPd | 57.0~ 59.0 | 余量 | — | — | — | — | — | Pd:9.50 ~10.50 | 824 | 852 |
| BAg68CuPd | 67.0~ 69.0 | 余量 | — | — | — | — | — | Pd:4.50 ~5.50 | 806 | 809 |
| BAg72Cu | 71.0~ 73.0 | 余量 | — | — | — | — | — | — | 779 | 779 |
| BAg72Cu(Li) | 71.0~ 73.0 | 余量 | — | — | — | — | — | Li:0.25~ 0.50 | 766 | 766 |
| BAg72Cu(Ni) | 70.5~ 72.5 | 余量 | — | — | — | 0.3~ 0.7 | — | — | 779 | 795 |
| BAg85Cu | 84.0~ 68.0 | 余量 | — | — | — | — | — | — | 779 | 840 |
| BAg92Cu | 91.5~ 93.5 | 余量 | — | — | — | — | — | — | 779 | 888 |
| BAg92Cu(Li) | 92.0~ 93.0 | 余量 | — | — | — | — | — | Li:0.15~ 0.30 | 760 | 891 |
| Ag-Cu-Zn 钎料 | | | | | | | | | | |
| BAg5CuZn(Si) | 4.0~ 6.0 | 54.0~ 56.0 | 38.0~ 42.0 | — | — | — | — | Si:0.05~ 0.25 | 820 | 870 |
| BAg12CuZn(Si) | 11.0~ 13.0 | 47.0~ 49.0 | 38.0~ 42.0 | — | — | — | — | Si:0.05~ 0.25 | 800 | 830 |
| BAg20CuZn(Si) | 19.0~ 21.0 | 43.0~ 45.0 | 34.0~ 38.0 | — | — | — | — | Si:0.05~ 0.25 | 690 | 810 |
| BAg25CuZn | 24.0~ 26.0 | 39.0~ 41.0 | 33.0~ 37.0 | — | — | — | — | — | 700 | 790 |
| BAg30CuZn | 29.0~ 31.0 | 37.0~ 39.0 | 30.0~ 34.0 | — | — | — | — | — | 680 | 765 |
| BAg30CuZnNi(S i) | 29.0~ 31.0 | 35.0~ 37.0 | 29.5~ 34.0 | — | — | 2.0~ 2.5 | — | Si:0.05~ 0.15 | 675 | 790 |

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|-----------------------|-----------------|---------------|---------------|---------------|--------------|----|----|----|----------|-----|
| | Ag | Cu | Zn | Cd | Sn /P | Ni | Mn | 其他 | 固相线 | 液相线 |
| BAg44CuZn | 43.0~ 45.0 | 29.0~ 31.0 | 24.0~ 28.0 | — | — | — | — | — | 675 | 735 |
| BAg45CuZn | 44.0~ 46.0 | 29.0~ 31.0 | 23.0~ 27.0 | — | — | — | — | — | 665 | 745 |
| BAg50CuZn | 49.0~ 51.0 | 33.0~ 35.0 | 14.0~ 18.0 | — | — | — | — | — | 690 | 775 |
| BAg60CuZn | 59.0~ 61.0 | 25.0~ 27.0 | 12.0~ 16.0 | — | — | — | — | — | 695 | 730 |
| BAg63CuZn | 62.0~ 64.0 | 23.0~ 25.0 | 11.0~ 15.0 | — | — | — | — | — | 690 | 730 |
| BAg65CuZn | 64.0~ 66.0 | 19.0~ 21.0 | 13.0~ 17.0 | — | — | — | — | — | 670 | 720 |
| BAg70CuZn | 69.0~ 71.0 | 19.0~ 21.0 | 8.0~1 2.0 | — | — | — | — | — | 690 | 740 |
| Ag-Cu-Zn-Sn 钎料 | | | | | | | | | | |
| BAg25CuZnSn | 24.0~ 26.0 | 39.0~ 41.0 | 31.0~ 35.0 | — | 1.5~ 2.5 | — | — | — | 680 | 760 |
| BAg30CuZnSn | 29.0~ 31.0 | 35.0~ 37.0 | 30.0~ 34.0 | — | 1.5~ 2.5 | — | — | — | 665 | 755 |
| BAg34CuZnSn | 33.0~ 35.0 | 35.0~ 37.0 | 25.5~ 29.5 | — | 2.0~ 3.0 | — | — | — | 630 | 730 |
| BAg38CuZnSn | 37.0~ 39.0 | 31.0~ 33.0 | 26.0~ 30.0 | — | 1.5~ 2.5 | — | — | — | 650 | 720 |
| BAg40CuZnSn | 39.0~ 41.0 | 29.0~ 31.0 | 26.0~ 30.0 | — | 1.5~ 2.5 | — | — | — | 650 | 710 |
| BAg45CuZnSn | 44.0~ 46.0 | 26.0~ 28.0 | 23.5~ 27.5 | — | 2.0~ 3.0 | — | — | — | 640 | 680 |
| BAg55ZnCuSn | 54.0~ 56.0 | 20.0~ 22.0 | 20.0~ 24.0 | — | 1.5~ 2.5 | — | — | — | 630 | 660 |
| BAg56CuZnSn | 55.0~ 57.0 | 21.0~ 23.0 | 15.0~ 19.0 | — | 4.5~ 5.5 | — | — | — | 620 | 655 |
| BAg60CuZnSn | 59.0~ 61.0 | 22.0~ 24.0 | 12.0~ 16.0 | — | 2.0~ 4.0 | — | — | — | 620 | 685 |
| BAg60CuSn | 59.0~ 61.0 | 余量 | — | — | 9.5~ 10.5 | — | — | — | 600 | 730 |
| Ag-Cu-Zn-Cd 钎料 | | | | | | | | | | |
| BAg20CuZnCd | 19.0~ 21.0 | 39.0~ 41.0 | 23.0~ 27.0 | 13.0~ 17.0 | — | — | — | — | 605 | 765 |
| BAg25CuZnCd | 24.0~ 26.0 | 29.0~ 31.0 | 25.5~ 29.5 | 16.5~ 18.5 | — | — | — | — | 605 | 720 |

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|--------------------------|-------------------|---------------------|---------------|---------------|----------|-------------|--------------|------------------|----------|-----|
| | Ag | Cu | Zn | Cd | Sn /P | Ni | Mn | 其他 | 固相线 | 液相线 |
| BAg35CuZnCd | 34.0~ 36.0 | 25.0~ 27.0 | 19.0~ 23.0 | 17.0~ 19.0 | — | — | — | — | 610 | 700 |
| BAg40CuZnCd | 39.0~ 41.0 | 18.0~ 20.0 | 19.0~ 23.0 | 18.0~ 22.0 | — | — | — | — | 595 | 630 |
| BAg45CdZnCu | 44.0~ 46.0 | 14.0~ 16.0 | 14.0~ 18.0 | 23.0~ 25.0 | — | — | — | — | 605 | 620 |
| BAg50CdZnCu | 49.0~ 51.0 | 14.5~ 16.5 | 14.5~ 18.5 | 17.0~ 19.0 | — | — | — | — | 620 | 640 |
| BAg40CdCuZn(Ni) | 39.0~ 41.0 | 15.5~ 16.5 | 15.5~ 19.5 | 25.0~ 28.5 | — | 0.1~ 0.3 | — | — | 595 | 605 |
| BAg50ZnCdCu Ni | 49.0~ 51.0 | 14.5~ 16.5 | 13.5~ 17.5 | 15.0~ 17.0 | — | 2.5~ 3.5 | — | — | 635 | 655 |
| Ag-Cu-Zn-In 钎料 | | | | | | | | | | |
| BAg30CuZnIn | 29.0~ 31.0 | 37.0~ 39.0 | 25.5~ 28.5 | — | — | — | — | In:4.5~ 5.5 | 640 | 755 |
| BAg34CuZnIn | 33.0~ 35.0 | 34.0~ 36.0 | 28.5~ 31.5 | — | — | — | — | In:0.8~ 1.2 | 660 | 740 |
| BAg40CuZnIn | 39.0~ 41.0 | 29.0~ 31.0 | 23.5~ 26.5 | — | — | — | — | In:4.5~ 5.5 | 635 | 715 |
| BAg62CuIn | 60.5~ 62.5 | 余量 | — | — | — | — | — | In:14.0~ 15.0 | 624 | 707 |
| Ag-Cu-Zn-Ni-Mn 钎料 | | | | | | | | | | |
| BAg25CuZnMn Ni | 24.0~ 26.0 | 37.0~ 39.0 | 31.0~ 35.0 | — | — | 1.5~ 2.5 | 1.5~ 2.5 | — | 705 | 800 |
| BAg27CuZnMn Ni | 26.0~ 28.0 | 37.0~ 39.0 | 18.0~ 22.0 | — | — | 5.0~ 6.0 | 8.5~ 10.5 | — | 680 | 830 |
| BAg40CuZnNi | 39.0~ 41.0 | 29.0~ 31.0 | 26.0~ 30.0 | — | — | 1.5~ 2.5 | — | — | 670 | 780 |
| BAg49ZnCuMn Ni | 48.0~ 50.0 | 15.0~ 17.0 | 21.0~ 25.0 | — | — | 4.0~ 5.0 | 7.0~ 8.0 | — | 680 | 705 |
| BAg50ZnCuNi | 49.0~ 51.0 | 19.0~ 21.0 | 26.0~ 30.0 | — | — | 1.5~ 2.5 | — | — | 660 | 705 |
| BAg54CuZn(Ni) | 53.0~ 55.0 | 余量 | 4.0~ 6.0 | — | — | 0.5~ 1.5 | — | — | 760 | 845 |
| BAg56CuNi | 55.0~ 57.0 | 余量 | — | — | — | 1.5~ 2.5 | — | — | 785 | 870 |
| BAg56CuInNi | 55.0~ 57.0 | 26.25 ~ 28.25 | — | — | — | 2.0~ 2.5 | — | In:13.5~ 15.5 | 600 | 710 |

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|--|-----------------|----|----|----|-------------|----|----|----|----------|-----|
| | Ag | Cu | Zn | Cd | Sn /P | Ni | Mn | 其他 | 固相线 | 液相线 |
| B _{Ag} 85Mn | 84.0~ 86.0 | — | — | — | — | — | 余量 | — | 960 | 970 |
| Ag-Cu-P 钎料 | | | | | | | | | | |
| B _{Cu} 75AgP | 17.0~ 19.0 | 余量 | — | — | 6.6~ 7.5 | — | — | — | 645 | 645 |
| <ul style="list-style-type: none"> ● 表中单值为最大值，“余量”表示 100%与其余元素含量总和的差值。 ● 表中所有牌号钎料的杂质元素最大含量（质量分数，wt%）是：Al 0.001，Bi 0.030，Cd 0.010，P 0.008，Pb 0.025，Si 0.05；B_{Ag}27CuZnMnNi、B_{Ag}49ZnCuMnNi 和 B_{Ag}85Mn 钎料的杂质元素总含量 ≤ 0.30，其他牌号钎料杂质元素总含量 ≤ 0.15。 | | | | | | | | | | |