

SILVER BRAZING ALLOYS

Silver Brazing Alloys with Cadmium

| PRODUCT CODE | STANDARDS | | | CHEMICAL COMPOSITION | | | | MELTING RANGE °C | AVAILABLE FORMS |
|--------------|-----------|----------|----------|----------------------|----|----|----|------------------|-----------------|
| | EN 1044 | AWS A5.8 | DIN 8513 | Ag | Cu | Zn | Cd | | |
| 5020 | AG 309 | - | L-Ag20Cd | 20 | 40 | 25 | 15 | 605-765 | |
| 5025 | AG 307 | BAG-33 | L-Ag25Cd | 25 | 30 | 27 | 18 | 605-720 | • • |
| 5025* | - | BAG-27 | - | 25 | 35 | 26 | 14 | 605-745 | • • • • • • |
| 5030 | AG 306 | BAG-2a | L-Ag30Cd | 30 | 28 | 21 | 21 | 600-690 | |
| 5034 | - | BAG-2 | - | 34 | 25 | 22 | 19 | 610-680 | |
| 5040 | AG 304 | - | L-Ag40Cd | 40 | 19 | 21 | 20 | 595-630 | |
| 5045 | AG 302 | BAG-1 | L-Ag45Cd | 45 | 16 | 16 | 23 | 620-635 | |
| 5050 | AG 301 | BAG-1a | L-Ag50Cd | 50 | 15 | 17 | 18 | 620-640 | |

Universal brazing alloys suitable for brazing of any steel, copper and copper alloys, nickel and nickel alloys. When brazing stainless steel, zinc content of these alloys may cause corrosion. Overheating during brazing process may cause highly toxic cadmium fumes.

Cadmium-free Silver Brazing Alloys

| PRODUCT CODE | STANDARDS | | | CHEMICAL COMPOSITION | | | | MELTING RANGE °C | AVAILABLE FORMS |
|--------------|-----------|----------|----------|----------------------|----|----|---------|------------------|-----------------|
| | EN 1044 | AWS A5.8 | DIN 8513 | Ag | Cu | Zn | Other | | |
| 6025 | AG 108 | - | L-Ag25Sn | 25 | 40 | 33 | 2 Sn | 680-760 | |
| 6030 | AG 107 | - | L-Ag30Sn | 30 | 36 | 32 | 2 Sn | 650-750 | |
| 6034 | AG 106 | - | L-Ag34Sn | 34 | 36 | 27 | 3 Sn | 630-730 | |
| 6038 | - | BAG-34 | - | 38 | 32 | 28 | 2 Sn | 650-720 | |
| 6040 | AG 105 | BAG-28 | L-Ag40Sn | 40 | 30 | 28 | 2 Sn | 640-700 | |
| 6045 | AG 104 | - | L-Ag45Sn | 45 | 27 | 25 | 3 Sn | 640-680 | |
| 6055 | AG 103 | - | L-Ag55Sn | 55 | 21 | 22 | 2 Sn | 620-660 | |
| 6055* | AG 102 | BAG-7 | L-Ag55Sn | 55 | 22 | 18 | 5 Sn | 620-660 | |
| 4005 | AG 208 | - | L-Ag5 | 5 | 55 | 40 | 0,15 Si | 820-870 | |
| 4012 | AG 207 | - | L-Ag12 | 12 | 48 | 40 | 0,15 Si | 800-830 | |
| 4020 | AG 206 | - | L-Ag20 | 20 | 45 | 35 | 0,15 Si | 790-810 | |
| 4025 | AG 205 | - | L-Ag25 | 25 | 41 | 34 | - | 700-780 | |
| 4030 | AG 204 | BAG-20 | L-Ag30 | 30 | 38 | 32 | - | 690-765 | |
| 4044 | AG 203 | BAG-5 | L-Ag44 | 44 | 30 | 26 | - | 675-735 | |

All alloys in this group are suitable for brazing of any steel, copper and copper alloys, nickel and nickel alloys. When brazing stainless steel, zinc content of these alloys may cause corrosion. Tin containing cadmium-free silver brazing alloys are developed to replace the silver alloys with cadmium. Ternary alloys are favorable for dynamic operations.



Silver Brazing Alloys for Tungsten Carbide Tipped Tools

| PRODUCT CODE | STANDARDS | | | CHEMICAL COMPOSITION | | | | | MELTING RANGE °C | AVAILABLE FORMS |
|--------------|-----------|----------|------------|----------------------|------|------|-----|-------|------------------|-----------------|
| | EN 1044 | AWS A5.8 | DIN 8513 | Ag | Cu | Zn | Ni | Other | | |
| 7027 | AG 503 | - | L-Ag27 | 27 | 39 | 20,5 | 5 | 8,5Mn | 680-830 | |
| 7049 | AG 502 | BAG-22 | - | 49 | 17 | 22 | 5 | 7,0Mn | 625-705 | |
| 7049 CU | - | - | - | 49 | 27,5 | 20,5 | 0,5 | 2,5Mn | 625-705 | |
| 7050 | - | BAG-3 | L-Ag50CdNi | 50 | 15 | 16 | 3 | 16Cd | 633-688 | |
| 7056 | AG 403 | - | L-Ag56InNi | 56 | 26 | - | 4 | 14In | 620-730 | |

Alloys in this group is formulated to join tungsten carbide to parent metal.

Silver Brazing Alloys for Special Applications

| PRODUCT CODE | STANDARDS | | | CHEMICAL COMPOSITION | | | MELTING RANGE °C | AVAILABLE FORMS |
|--------------|-----------|----------|----------|----------------------|----|-------|------------------|-----------------|
| | EN 1044 | AWS A5.8 | DIN 8513 | Ag | Cu | Other | | |
| 7072 | AG 401 | BAG-8 | L-Ag72 | 72 | 28 | - | 778 | |
| 7060 | AG 402 | - | - | 60 | 30 | 10Sn | 600-730 | |

7072 is the eutectic alloy used when no zinc is required. Can be used in furnace applications, with and without flux. 7060 alloy is suitable for brazing stainless steel.

Silver Brazing Fluxes

| PRODUCT CODE | STANDARDS | | |
|--------------|-----------|-----------|----------|
| | EN 1045 | AWS A5.31 | DIN 8511 |
| 045 | FH10 | FB3-F | F-SH1 |
| 055 | FH10 | FB3-F | F-SH1 |
| 056 | FH10 | FB3-F | F-SH1 |

FORTEBRAZE 045 ve FORTEBRAZE 055 çelik, bakır alaşımlarının birleştirilmesinde gümüş içeren sert lehim alaşımlarıyla kullanılan, toz formundaki dekapanlardır. Gerekliğinde su ile karıştırılıp pasta formunda da kullanılabilir. Sert lehim işlemi otomatik ise FORTEBRAZE 045, manuel ise FORTEBRAZE 055 kullanımı önerilir. Universal gümüş sert lehimi olan FORTEBRAZE 055'in kullanım sıcaklık aralığı 550-800 °C'dir.



FORTEBRAZE