

## BRONZ ALAŞIMLARININ KİMYASAL ÖZELLİKLERİ

| CİNSİ                   | NORMU  | ALAŞIM ELEMENTLERİ (%) |                |               |                |               |                |               |               |               |               |               |               |
|-------------------------|--|------------------------|----------------|---------------|----------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                         |  | Cu                     | Sn             | Zn            | Pb             | Ni            | Al             | Fe            | Mn            | P             | Sb            | Si            | S             |
| KALAY BRONZLARI         | TS EN 1982 (ciz:17)<br>CuSn10-C<br>(CC480K)          | 88.00<br>90.00         | 9.00<br>11.00  | maks.<br>0.50 | maks.<br>1.00  | maks.<br>2.00 | maks.<br>0.01  | maks.<br>0.20 | maks.<br>0.10 | maks.<br>0.20 | maks.<br>0.20 | maks.<br>0.02 | maks.<br>0.05 |
|                         | TS EN 1982 (ciz:20)<br>CuSn12-C<br>(CC843K)          | 85.00<br>88.50         | 11.00<br>13.00 | maks.<br>0.50 | maks.<br>0.70  | maks.<br>2.00 | maks.<br>0.01  | maks.<br>0.20 | maks.<br>0.20 | maks.<br>0.60 | maks.<br>0.15 | maks.<br>0.01 | maks.<br>0.05 |
|                         | DIN 1705 (1969)<br>G-SnBz14                          | 85.00<br>87.00         | 13.00<br>15.00 |               |                |               |                |               |               |               |               |               |               |
|                         | TS EN 1982 (ciz:21)<br>CuSn12Ni2-C<br>(CC484K)       | 84.50<br>87.50         | 11.00<br>13.00 | maks.<br>0.40 | maks.<br>0.30  | 1.50<br>2.50  | maks.<br>0.01  | maks.<br>0.20 | maks.<br>0.20 | 0.05<br>0.40  | maks.<br>0.10 | maks.<br>0.01 | maks.<br>0.05 |
|                         | TS EN 1982 (ciz:19)<br>CuSn11Pb2 (CC482K)            | 83.50<br>87.00         | 10.50<br>12.50 | maks.<br>2.00 | 0.70<br>2.50   | maks.<br>2.00 | maks.<br>0.01  | maks.<br>0.20 | maks.<br>0.20 | maks.<br>0.40 | maks.<br>0.20 | maks.<br>0.01 | maks.<br>0.08 |
| KIZIL BRONZLAR          | TS EN 1982 (ciz:23)<br>CuSn5Zn5Pb5-C                 | 83.00<br>87.00         | 4.00<br>6.00   | 4.00<br>6.00  | 4.00<br>6.00   | maks.<br>2.00 | maks.<br>0.01  | maks.<br>0.30 |               | maks.<br>0.10 | maks.<br>0.25 | maks.<br>0.01 | maks.<br>0.10 |
|                         | TS EN 1982 (ciz:25)<br>CuSn7Zn4Pb7-C                 | 81.00<br>85.00         | 6.00<br>8.00   | 2.00<br>5.00  | 5.00<br>8.00   | maks.<br>2.00 | maks.<br>0.01  | maks.<br>0.20 |               | maks.<br>0.10 | maks.<br>0.30 | maks.<br>0.01 | maks.<br>0.10 |
|                         | DIN 1705 (1981)<br>G-CuSn10Zn                        | 86.00<br>89.00         | 9.00<br>11.00  | 1.00<br>3.00  |                |               |                |               |               |               |               |               |               |
| KALAY -KURŞUN BRONZLARI | TS 502 (ciz:25)<br>D-CuPb5Sn10                       | 84.00<br>87.00         | 9.00<br>11.00  | maks.<br>2.00 | 4.00<br>6.00   | maks.<br>1.50 |                | maks.<br>0.25 |               | maks.<br>0.05 | maks.<br>0.35 |               |               |
|                         | TS EN 1982 (ciz:28)<br>CuSn10Pb10-C<br>(CC495K)      | 78.00<br>82.00         | 9.00<br>11.00  | maks.<br>2.00 | 8.00<br>11.00  | maks.<br>2.00 | maks.<br>0.01  | maks.<br>0.25 | maks.<br>0.20 | maks.<br>0.10 | maks.<br>0.50 | maks.<br>0.01 | maks.<br>0.10 |
|                         | TS EN 1982 (ciz: 29)<br>CuSn7Pb15-C<br>(CC496K)      | 74.00<br>80.00         | 6.00<br>8.00   | maks.<br>2.00 | 13.00<br>17.00 | 0.50<br>2.00  | maks.<br>0.01  | maks.<br>0.25 | maks.<br>0.20 | maks.<br>0.10 |               | maks.<br>0.01 | maks.<br>0.10 |
|                         | TS EN 1982 (ciz:30)<br>CuSn5Pb20-C<br>(CC497K)       | 70.00<br>78.00         | 4.00<br>6.00   | maks.<br>2.00 | 18.00<br>23.00 | 0.50<br>2.50  | maks.<br>0.01  | maks.<br>0.25 | maks.<br>0.20 | maks.<br>0.10 |               | maks.<br>0.01 | maks.<br>0.10 |
| ALÜMİNYUM BRONZLARI     | TS EN 1982 (ciz:31)<br>CuAl9-C<br>(CC330G)           | 88.00<br>92.00         | maks.<br>0.30  | maks.<br>0.50 | maks.<br>0.30  | maks.<br>1.00 | 8.00<br>10.50  | maks.<br>1.20 | maks.<br>0.50 |               |               | maks.<br>0.20 |               |
|                         | TS EN 1982 (ciz:32)<br>CuAl10Fe2-C<br>(CC331G)       | 83.00<br>89.50         | maks.<br>0.20  | maks.<br>0.50 | maks.<br>0.10  | maks.<br>1.50 | 8.50<br>10.50  | 1.50<br>3.50  | maks.<br>1.00 |               |               | maks.<br>0.20 |               |
|                         | TS EN 1982 (ciz: 34)<br>CuAl10Fe5Ni5-C<br>(CC333G)   | 76.00<br>83.00         | maks.<br>0.10  | maks.<br>0.50 | maks.<br>0.03  | 4.00<br>6.00  | 8.50<br>10.50  | 4.00<br>5.50  | maks.<br>3.00 |               |               | maks.<br>0.10 |               |
|                         | DIN 1714 (1981)<br>Gz-CuAl8Mn                        | 82.00<br>(min)         |                |               |                | 1.00<br>2.00  | 7.00<br>9.00   |               | 5.00<br>6.50  |               |               |               |               |
|                         | TS EN 1982 (ciz:33)<br>CuAl10Ni3Fe2-C<br>(CC332G)    | 80.00<br>86.00         | maks.<br>0.20  | maks.<br>0.50 | maks.<br>0.10  | 1.50<br>4.00  | 8.50<br>10.50  | 1.00<br>3.00  | maks.<br>2.00 |               |               | maks.<br>0.20 |               |
|                         | TS EN 1982 (ciz:35)<br>CuAl11Fe5Ni6-C<br>(CC334G)    | 72.00<br>78.00         | maks.<br>0.20  | maks.<br>0.50 | maks.<br>0.05  | 4.00<br>7.50  | 10.00<br>12.00 | 4.00<br>7.00  | maks.<br>2.50 |               |               | maks.<br>0.10 |               |
| ÖZEL PİRİNÇLER          | DIN 1709 (1981)<br>Gz-CuZn40Fe                       | 56.00<br>62.00         |                | KALAN         |                |               |                | 0.20<br>1.20  |               |               |               |               |               |
|                         | TS EN 1982 (ciz:14)<br>CuZn35Mn2Al1Fe1-C<br>(CC7653) | 57.00<br>65.00         | maks.<br>1.00  | KALAN         | maks.<br>0.50  | maks.<br>6.00 | 0.50<br>2.50   | 0.50<br>2.00  | 0.50<br>3.00  | maks.<br>0.03 | maks.<br>0.08 |               |               |
|                         | TS EN 1982 (ciz:13)<br>CuZn34Mn3Al2Fe1-C<br>(CC764S) | 55.00<br>66.00         | maks.<br>0.30  | KALAN         | maks.<br>0.30  | maks.<br>3.00 | 1.00<br>3.00   | 0.50<br>2.50  | 1.00<br>4.00  | maks.<br>0.03 | maks.<br>0.05 | maks.<br>0.10 |               |
|                         | TS EN 1982 (ciz:11)<br>CuZn25Al5Mn4Fe3-C<br>(CC762S) | 60.00<br>67.00         | maks.<br>0.20  | KALAN         | maks.<br>0.20  | maks.<br>3.00 | 3.00<br>7.00   | 1.50<br>4.00  | 2.50<br>5.00  | maks.<br>0.03 | maks.<br>0.03 | maks.<br>0.10 |               |