



Cored Solder Wire

Revision: 2.5

16/02/2021

Description

A unique flux core contained in Purity Solder Wire. It is a precision manufactured solder wire dedicated for manual (hand soldering), automated and high-speed soldering applications. It is available in four formulations (RMA, RA, SRA and RM10) and offers efficient soldering of Copper, Brass, Nickel and Zinc. Applications include lamp and Component technology and sensitive electronic assembly.

High Purity Solder Alloy

Standardization is important to reduce variety and to promote the quality of products by defining features and characteristics governing their fitness for purpose. The standards promote clear unambiguous communication between purchasers and suppliers for quotation ordering and supply purposes.

In 1994 a single European standard, EN 29453 (ISO 9453), superseded all other European national standards including: BS 219, DIN 1707, NFC 90-550. Other equivalent international standards include JSTD-006, ASTM B32 and JIS-Z-3382.

Lead free Solder alloy

| Alloy Name | Alloy Breakdown | Melting Temperature °C |
|-------------|--------------------|------------------------|
| Tin | Sn100 | 232 |
| 96S | Sn96.5/Ag3.5 | 221 |
| Sn96.3Ag3.7 | Sn96.3/Ag3.7 | 221 |
| 96/4 | Sn96/Ag4 | 221 |
| 98S | Sn98/Ag2 | 221-226 |
| TSC | Sn95.8/Ag3.5/Cu0.7 | 217-218 |
| SAC405 | Sn95.5/Ag4/Cu0.5 | 217-219 |
| Sc100e | Cu0.5-0.7/Sn Rem | 227 |
| LM10A | Sn87/Ag10/Cu3 | 214-275 |
| SACXP0307 | Sn/Cu0.7/Ag0.3 | 217-227 |
| SAC0307 | Sn99/Ag0.3/Cu0.7 | 217-227 |
| SAC305 | Sn96.5/Ag3/Cu0.5 | 217-220 |
| SAC300 | Sn97/Ag3 | 221-224 |
| SAC3 | Sn96.7/Ag2.8/Cu0.5 | 217-220 |
| SAC2 | Sn97.5/Ag2/Cu0.5 | 217-220 |
| SAC1 | Sn99.2/Ag0.3/Cu0.5 | 217-220 |
| 97C | Sn97/Cu3 | 227-310 |
| 99C | Sn99.3/Cu0.7 | 227 |
| 95A | Sb4.5-5.5/Sn Rem | 235-240 |

Key: Sn-Tin, Ag-Silver, Cu-Copper, Rem-Remainder
Other alloys available

Leaded solder alloy

| Alloy Name | Alloy Breakdown | Melting Temperature °C |
|---------------|-----------------------|------------------------|
| 60/40 | Sn60/Pb40 | 183-190 |
| 63/37 | Sn63/Pb37 | 183 |
| 50/50 | Sn50/Pb50 | 183-215 |
| 45/55 | Sn45/Pb55 | 183-226 |
| 40/60 | Sn40/Pb60 | 183-238 |
| 35/65 | Sn35/Pb65 | 183-245 |
| 30/70 | Sn30/Pb70 | 183-255 |
| 20/80 | Sn20/Pb80 | 183-280 |
| 10/90 | Sn10/Pb90 | 268-302 |
| Alloy 296 HMP | Sn5/Pb92/Ag3 | 296-301 |
| 15/85 | Sn15/Pb85 | 226-290 |
| LMP 62S | Sn62/Pb36/Ag2 | 179 |
| TLS/5 | Sn5/Pb94/Ag1 | 296-301 |
| HMP 5S | Sn5/Pb93.5/Ag1.5 | 296-301 |
| Sn10Pb88Ag2 | Sn10/Pb88/Ag2 | 268-290 |
| Alloy No1 | Sn50/Pb48.6/Cu1.4 | 183-215 |
| Alloy No2 | Sn60/Pb38.2/Cu1.8 | 183-190 |
| 1/99 | Sn1/Pb99 | 300 |
| 60/40 Ant | Sn60/Sb0.2-0.5/Pb Rem | 183-188 |

Key: Sn-Tin, Pb-Lead, Ag-Silver, Cu-Copper, Sb-Antimony, Rem-Remainder
Other alloys available

Typical batch analysis: Tin

| Sn | Sb | Pb | Cu | Zn |
|-------|-------|--------|--------|--------|
| 99.95 | 0.009 | 0.002 | 0.0002 | 0.0001 |
| Fe | As | Ag | Bi | In |
| 0.002 | 0.002 | 0.0001 | 0.0001 | 0.0003 |

Typical batch analysis: Lead

| Sn | Sb | Pb | Cu | Zn |
|-------|--------|-------|-------|--------|
| 0.001 | 0.002 | 99.99 | 0.003 | 0.0001 |
| Fe | As | Ag | Bi | In |
| 0.002 | 0.0005 | 0.002 | 0.005 | 0.0003 |

Typical batch analysis 63/37

| Sn | Sb | Pb | Cu | Zn | Fe | As | Ag | Bi | In |
|------|--------|-----------|--------|--------|-------|-------|--------|--------|--------|
| 63.0 | 0.0095 | remainder | 0.0007 | 0.0002 | 0.002 | 0.001 | 0.0005 | 0.0003 | 0.0003 |

Wire gauge diameter:

| SWG | mm | Inch |
|-----|-------|-------|
| 10 | 3.25 | 0.128 |
| 11 | 2.95 | 0.116 |
| 12 | 2.64 | 0.104 |
| 13 | 2.34 | 0.092 |
| 14 | 2.03 | 0.080 |
| 16 | 1.63 | 0.064 |
| 18 | 1.22 | 0.04 |
| 20 | 0.914 | 0.036 |
| 21 | 0.813 | 0.032 |
| 22 | 0.711 | 0.028 |
| 24 | 0.599 | 0.022 |
| 26 | 0.457 | 0.018 |
| 28 | 0.375 | 0.014 |
| 30 | 0.315 | 0.012 |
| 32 | 0.274 | 0.010 |
| 34 | 0.234 | 0.009 |
| 36 | 0.193 | 0.008 |

Other wire diameters available