

315-SOLDER and 315-LF-SOLDER **Solder for use in UHV**

Allectra offers for the use with UHV applications two qualities of solder.

315-SOLDER is a special high-temperature solder with a melting point of ~310°C. This solder contains lead, it is ROHS compatible by exemption 6b (lead in high melting solder with a lead content >85%)

315-LF-SOLDER is a lead free alternative with a lower melting point of ~230°C. It is easier to use and requires less aggressive flux.

Both solders contain only metals, with are UHV compatible. There is no flux added to the wires. Here a list of vapour pressures for the used materials:

315-SOLDER

| | | |
|--------|----|-----------------------------------|
| Lead | Pb | 1.3×10^{-11} mbar @ 505K |
| Silver | Ag | 1.3×10^{-8} mbar @ 850K |

315-LF-Solder

| | | |
|--------|----|-----------------------------------|
| Tin | Sn | 5.7×10^{-21} mbar @ 505K |
| Copper | Cu | 1.3×10^{-8} mbar@1000K |

(Source: Honig, RCA Review XXIII, 1962, 567 ff; Wikipedia)