



SOLDERING INSTRUCTIONS

SuperPower® 2G HTS Wire has excellent soldering characteristics.

Please note: the HTS layer [(RE)BCO side] is the side with the wire identification information

When soldering, the instructions listed below should be kept in mind:

SuperPower wire types with surround copper stabilizer (SCS):

1. Clean the surface of the 2G HTS wire and the area on the fixture or current lead to which the 2G wire is to be soldered.
2. Typical resin flux, e.g., Indium Corp TAC007, or commercial solder material, e.g., 40Pb-60Sn, may be used.
3. Tin the fixture or current leads and the 2G wire ([RE] BCO side) with solder material.
4. Gently press the 2G wire with (RE)BCO side facing to the fixture or the current lead to the (RE)BCO side of the 2G wire, and apply appropriate heat until solder material melt.
5. The soldering temperature should be kept as low as possible. Recommended temperature is 200°C for less than five minutes. In no case should your temperature exceed 240°C or time at the soldering temperature be greater than five minutes to avoid possible degradation in superconductivity.

SuperPower wire types with only silver overlayer (SF):

1. Clean the surface of the fixture to which the HTS wire is to be soldered.
2. Typical resin flux, e.g., Indium Corp TAC007, or commercial solder material, e.g., 40Pb-60Sn, may be used.
3. Tin the fixture or current leads and the 2G wire ([RE] BCO side) with solder material.
4. Gently press the 2G wire with (RE)BCO side facing to the fixture or the current lead to the (RE)BCO side of the 2G wire, and apply appropriate heat until solder material melt.
5. The soldering temperature should be kept below ~ 240°C to avoid possible degradation in superconductivity. If using 40Pb-60Sn, the recommended soldering temperature is 195°C.
6. When tinning the 2G wire surface, the process should be quick and brief to avoid the thin silver overlayer being scavenged.



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2G Marketing/Marketing Collateral/PDF Sheets/2014/01/Soldering Instructions_2014_v1.pdf

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