Soldering Of Litz Wire

The soldering stroke (immersion dip) should be a smooth, deliberate, and continuous, unhurried movement. The downward movement as the Litz wire enters the solder should be slow and encompass a horizontal movement that is parallel to or in the plane of the solder bath.

As the Litz wire is immersed into the solder, the film coating is removed, and oxides (contamination) are left on the surface of the solder pot due to the high surface tension effect of molten solder. The horizontal movement as discussed above allows the oxide contamination to be left behind the wire.

When soldering Litz wire, we recommend a pause at mid-pot to allow the heat to penetrate from strand to strand for the film and oxide on each to be reduced to a liquid residue, floated off, and the replaced with solder. Pause times must be determined experimentally.

Last, and most important, is to skim the molten solder surface at adequate intervals with a piece of sheet metal or cardboard to prevent oxides from the film and any surface oxidation from adherence to the soldered Litz.

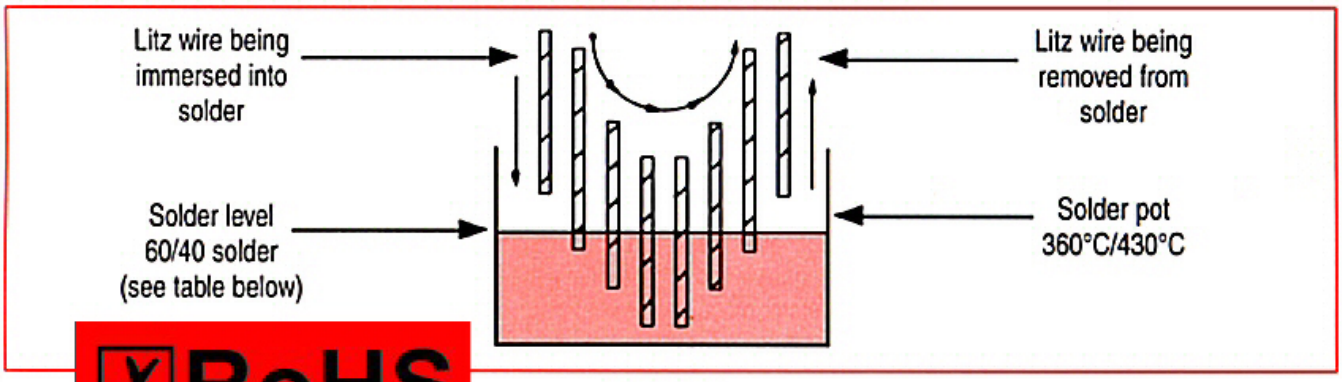

Figure 4

Soldering Time And Temperature

LITZ CROSS SECTION, MM²	NOMINAL DIA. LITZ WIRE, MM	AVERAGE IMMERSION TIME, SECONDS	TEMPERATURE OF SOLDER, °C
33.70 ~ 6.50	9.65 ~ 4.00	12	430
6.00 ~ 0.65	3.95 ~ 1.30	10	430
0.60 ~ 0.07	1.25 ~ 0.80	8	360
0.06 ~ 0.01	0.75 ~ 0.50	6	360
	0.45 ~ 0.25	5	360
	0.24 ~ 0.10	4	360

La note ci-dessus concerne le soudage non RoHS.

Pour les produits conformes à la norme RoHS, les températures de bain doivent généralement être plus élevées ainsi que le temps d'exposition du fil de Litz.

La multitude de différents produits pour la soudure conforme à RoHS ne nous permet pas d'éditer une plaquette avec des directives simples.