

About Litz wire

The term Litz wire is derived from the German word litzendraht meaning woven wire. Generally defined, it is a wire constructed of individual film insulated wires bunched together in a uniform pattern of twists and length of lay. The multi-strand configuration minimizes the power losses otherwise encountered in a solid conductor due to the "skin effect", or the tendency of radio frequency current to be concentrated at the surface of the conductor. In order to counteract this effect, it is necessary to increase the amount of surface area without appreciably increasing the size of the conductor. It is also essential to position each individual strand in the Litz construction in a uniform pattern moving from the center to the outside and back in a given length. Wires intended for higher frequency ranges require more strands of a finer gauge size than Litz wires of equal cross sectional area but composed of fewer and larger strands. Each strand is designed to occupy all possible positions in the bundle to approximately the same extent. Our IC-SL design maintains uniform resistance from DC to 1MHZ. Another big advantage of Litz wire is that it does not suffer from oxidation like regular wire because each individual strand has a thin film coating (5000V rated). It will sound just as good 20 years from now as it does today.