

*“What is the Ampacity of the various gauges of UL wire?”*

This question comes up occasionally and the answer always frustrates end users. The answer is not as easy as it may seem. A specific number cannot be provided due to the widely varied applications of UL wire and cable. Below is an extract from the Underwriters Laboratory Frequently Asked Questions website.

*Why are ampacity markings not permitted on UL Listed wire and cable, and not shown in UL wire and cable Standards?*

*The ampacity of a wire or cable is the amount of current that the wire or cable can transmit without exceeding its rated temperature. An ampacity marking on a wire or cable or a reference to a specific ampacity for a wire or cable in a UL wire or cable standard is not feasible since ampacity varies according to the actual conditions under which the cable will operate. These conditions include the ambient temperature, installation environment (e.g., free-air), conduit or directly buried in the earth. The National Electrical Code provides two methods for the cable user to determine ampacity for a cable based on the installation conditions.*

The National Electric Code (NEC) is published by the National Fire Protection Association (NFPA). It is a standard for the installation of electrical equipment and operation. Ampacity information is provided for various insulation types and temperature ratings of wire and cable under specific installation rules. It does not specifically address UL AWM wire but is often referenced as a guideline. The NEC also addresses correction of the Ampacity information base on certain installation variations. End users may find this data helpful in determining the Ampacity of wire for their specific situation.