

Ambient Temperature

The temperature of the medium (gas, liquid or earth) surrounding an object

American Mustang

A premium grade thermoset cord, UL listed as S00W or SJ00W, CSA S00W and SJ00W

American Wire Gauge (AWG)

A standard system for designating wire diameter. Also referred to as the Brown and Sharpe (B&S) wire gauge.

Ampacity

See *Current Carrying Capacity*

Ampere

A unit of electrical current, equal to the flow of one coulomb of electricity per second. The resistance at one volt potential.

Anneal

Relief of mechanical stress through application of heat and gradual cooling. Annealing copper renders it soft and less brittle

Audio Frequency

The range of frequencies audible to the human ear. Usually 20–20,000 Hz.

Braid

A covering over one or more wires

The voltage at which the insulation between two conductors breaks down

A group of wires of the same diameter twisted together without a predetermined pattern

Cabling

The twisting together of two or more insulated conductors to form a cable

Capacitance

The ability of a dielectric material between conductors to store electricity when a difference of potential exists between the conductors. The unit of measurement is the farad, which is the capacitance value that will store a charge of one coulomb when a one-volt potential difference exists between the conductors. In AC, one farad is the capacitance value that will permit one ampere of current when the voltage across the capacitor changes at a rate of one volt per second.

Circuit (Electric)

The complete path of an electrical current. When the continuity is broken, it is called an open circuit; when continuity is maintained, it is called a closed circuit.

Cold Flow

Permanent deformation of the insulation due to mechanical force or pressure (not due to heat softening)

Color Code

Tracers

Compound

An insulating or jacketing material made by mixing two or more ingredients

Concentricity

In a wire or cable, the measurement of the location of the center of the conductor with respect to the geometric center of the surrounding insulation

Conductor

An uninsulated wire suitable for carrying electrical current

Contacts

The parts of the connector that actually carry the electrical current and that touch the equivalent parts in the mating connector

Continuity Check

The length of a single wire or individual wires in a cable

Cord

A flexible cable

Corona

A voltage. Causes deterioration of insulation materials.

Crazing

The minute cracks on the surface of plastic materials

CSA

Canadian Standards Association, an organization that operates a listing service for electrical and electronic materials and equipment. The Canadian counterpart of the Underwriters Laboratories (UL).

Current Carrying Capacity



Wire & Cable Glossary of Terms

EMI

Abbreviation for electromagnetic interference

Farad

A unit of electrical capacitance

Filler

- 1) A material used in multiconductor cables to occupy large interstices formed by the assembled conductors;
- 2) An inert substance added to a compound to improve properties or decrease cost

Flame Resistance

The ability of a cable to resist flame propagation when the flame source is removed

Flex Life

The measurement of the ability of a conductor or cable to withstand repeated bending

Frequency

The number of times an alternating current repeats its cycle in one second

Gauge

A term used to denote the physical size of a wire

Ground

An electrical term meaning to connect to the earth or other large conducting body to serve as an earth, thus making a complete electrical circuit

Harness

An arrangement of wires and cables, usually with many breakouts, which have been tied together or pulled into a rubber or plastic sheath, used to interconnect an electric circuit

Hertz (Hz)

A term replacing cycles per second as an indication of frequency

Hi-Pot

A test designed to determine the highest voltage that can be applied to a conductor without breaking through the insulation

Impedance

The opposition to the flow of an alternating current by any other varying current at a particular frequency. It is a combination of resistance R and reactance X, measured in ohms.

Inductance

The property of a circuit or circuit element that opposes a change in current. It is measured in henrys.

Insulation

A dielectric material used to insulate a conductor in radio frequency cable.

Jacket

An outer non-metallic protective covering applied over an insulated wire or cable

Jumper Cable

A cable used to connect two electrical terminals

Lay

The length measured along the axis of a wire or cable required for a single strand (in stranded wire) or conductor (in cable) to make one complete turn



