

**Conductor** – Wire or combination of wires not insulated from one another, suitable for carrying an electric current.

**Conductor Core** – Center strand or member where one or more layers of wires or members are laid helically to form a concentric-lay or rope-lay conductor.

**Conductivity** – Term used in describing the capability of a material to carry an electrical charge. Usually expressed as a percentage of copper conductivity – copper being one hundred percent (100%).

**Conduit** – Tube through which insulated wires and cables are run.

**Connector** – Device used to physically and electrically connect two or more conductors.

**Continuity** – Continuous electrical current flow through a length of wire.

**Continuity check** – Test to determine whether electrical current flows continuously throughout the length of a single wire or individual wires in a cable.

**Continuous length** – One length of wire or cable without splices.

**Continuous Vulcanization (CV)** – Simultaneous extrusion and vulcanization (curing) of wire coating materials.

**Contra-helical** – Application of two or more layers of spirally twisted, served or wrapped materials where each successive layer is wrapped in the opposite direction of the preceding layer.

**Control cable** – Multiconductor cable suited for operation in control or signal circuits.

**Convolute** – Wire that does not have a completely round, cylindrical surface.

**Copper** – Most common conductor material used. One advantage of copper is its ability to be “annealed.” The conductivity of copper is 100%. It can be solid or stranded. Some stranded construction include:

**Unilay** – Most common type of stranding used in electronic wire and cable products. It is more than one layer of helically laid wires, with the direction and length of the lay the same for all layers.



**Bunched** – Formed from any number of wires twisted together in the same direction, such that all strands have the same lay length, but no specific geometric arrangement.



**Cord** – Small, flexible multi-conductor cable (UL 62 listed products).

**Corona** – Luminous discharge due to ionization of the gas surrounding a conductor where a voltage gradient exceeds a certain critical value.

**Corona resistance** – Time that insulation will withstand a specified level field-intensified ionization that does not result in the immediate complete breakdown of the insulation. Also, called voltage endurance.

**Corona test** – Test to determine the ability of a cable to withstand the formation of corona under an increasing applied voltage, and to extinguish corona when a corona-producing voltage is reduced.

**COTS** – Commercial Off-The-Shelf - Federal Acquisition Regulation (FAR) term defining a non-developmental item of supply that is both commercial and sold in substantial quantities in the commercial marketplace, and that can be procured or utilized under government contract in the same precise form as available to the general public.

**CPE** – Chlorinated Polyethylene. Can be thermoplastic or thermoset. Used as a jacket material.

**Creep** – Dimensional change with time of a material under load. Plastic deformation that proceeds slowly and continuously when stress is applied at elevated temperatures.

**Creepage** – Conduction of electricity across the surface of a dielectric

**Crimp termination** – End or termination that is applied by physical pressure of terminal to wire.

**Crosshead** – Holds tooling and directs flow of compound at extrusion.

**Cross linking** – Establishment of chemical bonds between polymer molecule chains.

**Cross-talk** – Signal interference between nearby conductors caused by pickup of stray energy. It is also called induced interference.

**Cross sectional area** – Area of the cut surface of an object cut at right angles to the length of the object.

**Crush resistance test** – Test to determine the ability of a cable to resist damage from radial compression.

**CSA** – Canadian Standards Association International - Independent, non-profit membership association dedicated to safety, social good and sustainability. Its knowledge and expertise encompass standards development; training and advisory solutions; global testing and certification services across key business areas including hazardous location and industrial, plumbing and construction, medical, safety and technology, appliances and gas, alternative energy, lighting and sustainability; as well as consumer product evaluation services. The CSA certification mark appears on billions of products worldwide.

**CT** – Computer Tomography - Method of examining body organs by scanning them with X rays and using a computer to construct a series of cross-sectional scans along a single axis.

**CTQC** – Critical-to-Quality Characteristic - Specific factor or attributes that are associated with a product, process or service that customers consider extremely important.

**cUL** – UL marking for products certified in Canada.

**Current (A)** – The rate of flow of electricity in a circuit, measured in amperes.

**Cut-through Resistance (CR)** – Ability of a given material to withstand penetration by a solid object of specified dimensions and weight.

**Cycle** – One complete sequence of variations in an alternating current. The number of cycles occurring in one second is called the frequency.

**dB** – Decibel - Logarithmic unit that indicates the ratio of a physical quantity (usually power or intensity) relative to a specified or implied reference level. It is used to express power loss in cables.