

Glossary of Terms

Abrasion resistance – Ability of cable to resist surface wear during the process of rubbing, grinding or wear and tear caused by friction.

ABS – American Bureau of Shipping - Leading marine and offshore classification society that has been commissioned to act in matters that relate directly to the safety of life and property at sea.

Acceptance testing – Testing performed on product to determine the degree of compliance with regulatory and/or specified requirements.

Accumulator – Device that accommodates the slack, without slowing down the extruder while operator changes reels.

AC Resistance – The total electrical resistance offered by a device in an Alternating Current circuit due to inductive and capacitive effects, as well as the direct current resistance.

Adhesion – Tendency of dissimilar surfaces to cling to one another by interfacial forces which may be chemical or mechanical in nature.

AG14 – Acid Gas 14% – Refers to the acid gas given off during burning of plastics used in cable. Normal PVC would produce approximately 30%, by weight, acid gas during combustion. AG14 indicates materials will produce less than 14% acid gas during combustion.

AIA – Aluminum Interlocked Armor or abbreviation for Automated Imaging Association.

Acrylonitrile Butadiene Rubber (NBR) – Thermoplastic melt processible rubber substitute that exhibits elasticity, mechanical properties and tactile quality of rubber.

Alloy – Metal formed by combining two or more different metals to obtain desirable properties.

Alternating Current (AC) – Electric current that continually reverses its direction giving a definite positive and negative waveform at fixed intervals.

Ambient Temperature – Any all-encompassing temperature within a given area.

AMD – Ammonium Dichromate - Commonly referred to as hexavalent chromium.

Ampacity – Maximum current that an insulated conductor or cable can continuously carry, without exceeding its temperature rating.

Ampere (A) – Unit of current. One ampere is the current flowing through one ohm of resistance at one volt potential.

American Wire Gauge (AWG) – Based on a circular mil system. 1 mil equals .001 inch. The standard system used for designating wire size. Some examples are as follows:

40 AWG – smaller than a hair

30 AWG – sewing thread

20 AWG – diameter of a pin

10 AWG – knitting needle

1 AWG – pencil

1/0 – “1-aught” finger

Anneal – Process of softening the copper by means of heat to make it less brittle.

ANSI – American National Standards Institute - Private non-profit organization that oversees the development of voluntary consensus standards for various products.

Antimony – Chemical used primarily in compounds for flame retardancy, generally is antimony trioxide.

Antioxidant – Substance that prevents or slows down oxygen decomposition of a material.

Antiozonant – Chemical compound that prevents or slows down material degradation of material due to ozone gas in the air.

Armor – Mechanical protection usually accomplished by a metallic layer of tape, braid or serve wires. Typically, the armor is found only over the outer sheath.

Armored cable – Cable manufactured with metal wrapped around the conductors primarily for the purpose of mechanical protection. Northwire offers aluminum interlocking armor and others.



AS9100 – Widely adopted and standardized quality management system for the aerospace industry. It was released in October, 1999, by the Society of Automotive Engineers and the European Association of Aerospace Industries.

AS-i® – Actuator Sensor Interface - Product specification for cable in network systems for the lowest field level of automation and communication technology.

ASQ – American Society for Quality - Global quality leader, offers memberships, tools, training, certifications, books and more on topics around quality assurance and improvement.

ASTM – American Society for Testing and Materials - Globally recognized leader in the development and delivery of international voluntary consensus standards.

ATEX – Atmosphere Explosive - European Directive (94/9/EC) which covers protective systems, equipment and components used on fixed offshore platforms, petrochemical plants, mines, flour mills and other areas where an explosive atmosphere may be present. The United States has a similar designation from the National Electrical Code® (NEC®), Class I Div 1.