

Conductive Hose

Conductive hose constructions are those that are capable of conducting an electrical current.

Static wires and conductive rubber components are used in hose to prevent static electricity build-up and a discharge as a spark. Electrical engineers differ in opinion on the effects of static electricity and the means of dissipating it. In handling gasoline and other petroleum-based liquids, recognized national associations and companies have conflicting opinions on the need for conductive hoses.

Until a consensus is reached among all associations, laboratories and users, and a standard practice is established, it is essential that the user determine the need for static bonded hose based on (a) the intended use of the hose, (b) instructions from the company's Safety Division, (c) the insurer, and (d) the laws of the States in which the hose will be used.

Some types of hose include a body reinforcing wire. This wire can be used for electrical continuity provided that proper contact is made between it and the hose coupling. In non-wire reinforced hose, a static wire can be included in the hose body.

Non-Conductive Hose

Non-conductive hose constructions are those that resist the flow of electrical current.

In some specific applications, especially around high voltage electrical lines, it is imperative for safety that the hose be non-conductive. Unless the hose is designed particularly to be non-conductive and is so branded, one dare not conclude that it is non-conductive. Many black rubber compounds are inherently and inadvertently conductive. Non-conductive hose is usually made to a qualifying standard that requires it to be tested to verify the desired electrical properties. The hose is usually non-black in color and clearly branded to indicate it is designed for non-conductive applications.

UNLESS A HOSE IS DESCRIBED SPECIFICALLY AND CLEARLY BRANDED TO BE CONDUCTING OR NON-CONDUCTING, IT MUST BE ASSUMED THAT THE ELECTRICAL PROPERTIES ARE UNCONTROLLED.