



CAVEL - a European product made in Italy

Typical CAVEL Laboratory Checks

Introduction



The Italiana Conduttori Srl Laboratory systematically carries out a full and detailed analysis on all finished cables, to check the size-related, mechanical and electrical parameters. The following features are tested and recorded: Construction, Weight, Physical Dimensions, Mechanical Resistance, Electrical Resistance of the wires, Impedance, Capacity, Attenuation Losses and Structural Return Losses (SRL).

Typically, a 100-meter length is tested for each finished product batch and a Test Report compiled, which can form the basis of a Test Summary or Certificate of Conformity at the customer's request. A copy of this report is retained in our archives for two years.

Measurement and Equipment Details

The Laboratory houses all the equipment required to perform the following measurements:

- Elongation, Breaking Load and Compression (up to 2500 Newton) on metal wires and plastic materials
- Size measurements using millesimal calipers
- Impedance, Linear actuation and SRL (Structural Return Loss) up to 3 GHz, using four network analyzers
- Screening Attenuation measurements (up to 120 dB and 3 GHz), using:
- "Bedea" Triaxial System for both drop and distribution cables and
- for measurements on terminated cables (ropes) with the Bedea "tube in tube" system.
- Weight, with a high-precision set of scales
- Optical tests using a microscope (up to 50x magnification), coupled with CCD camera and large screen
- Electrical Resistance measurement, Capacity measurement and Impedance and Inductance measurements, with WAYNE-KERR analyzer bridge
- Resistance to UV Rays and Aging Tests, using two Climatic Chambers
- Shore Hardness and Specific Weight of the plastic materials
- Measurements with TDR (Reflectometer), to look for individual faults on the cable
- Insulation Resistance, up to 3 Gohm
- Insulation voltage, up to 12 kV_{dc}
- Certification and testing of LAN cables using FLUKE DTX1800 instrument
- LAN impedance and attenuation measurement using Network analyzer and Symmetric group Balun

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Quality System Manager

CAVEL – Italiana Conduttori Srl

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