

Introduction of Byson's laboratory

The laboratory was established in September 2012 and invested a million dollar in having complete test equipment. There are five affiliated laboratories: environmental laboratory, flame laboratory, physical and chemical laboratory, electrical laboratory and other related equipment. This laboratory mainly undertakes cable products reliability tests, such as cable material research test projects. If you want to know more about the laboratory, please download the full introduction.

<p>ENVIRONMENT</p>	<ul style="list-style-type: none"> • RoHS (Hitachi) • TGA - Thermogravimetric Analyzer • DSC - Differential scanning calorimetry analysis instrument • RoHS - Quantitative
<p>FLAME</p>	<ul style="list-style-type: none"> • IEC60332 • UL VW/VW-1 • Smoke Density
<p>PHYSICAL & CHEMICAL</p>	<ul style="list-style-type: none"> • Aging Test • Low Temperature Test • Damp Heat Test • Moisture Test • Scanning Electron Microscope
<p>ELECTRICAL</p>	<ul style="list-style-type: none"> • Long Term Insulation Resistance Test
<p>OTHERS</p>	<ul style="list-style-type: none"> • Dimension Measurement (Mold/Thickness point of Insulation) • Melt Index

As cables are a current transmission channel, safe and reliable performance is required. This is especially true for photovoltaic cables, because they are commonly used in outdoor environments, such as in desert and coastlines. The cables will be affected by ultraviolet radiation, ozone and chemical erosion and severe temperature changes. Under this kind of environmental stress, cable jackets have the risk of rupture and decomposition of cable insulation. This risk will directly impact the cable system, and also increases the risk of cable short circuit, from which the possibility of a fire or personal injury is also higher. This cable also needs to have a system of reliability testing and verification.

The above laboratory experiment tests mechanical properties, environment aging, combustion test, electrical test to verify the reliability of cables and the consistency of product quality. The service life of 25 years is also achieved by quality assurance requirements.