

Smoke Density

The smoke density measurement taken from a material under fire conditions gives an indication of the visibility through the smoke, this is important as reduced visibility in a real fire situation makes it more difficult to escape from a fire hence increasing the threat to human life from the toxic gases, flames and heat.

IEC 61034 Test procedure:

The test is performed inside a chamber measuring 3 m by 3 m by 3 m.

Specimens are placed onto the specimen stand and an alcohol fuel source is placed below it. At the start of the test the fuel is ignited. The test duration is 40 minutes.

The test is performed by monitoring the transmittance reduction of a white light beam, running from one side of the chamber to the other at a set height, thus monitoring the build-up of smoke inside the chamber.

A minimum light transmittance of $\geq 60\%$ is applied in order to classify a cable as low smoke.

