

ACIDITY CLASSIFICATION FOR CABLE MATERIALS (EN 50267)

THE ACID GAS TEST - EN 50297-2-3:1998

This test has been incorporated into the Euroclassification of cables as part of the Construction Products Directive, introducing an additional acidity classification. This standard uses a simpler apparatus (Figure 3) in which a static sample is decomposed in a stream of flowing air in the middle of the tube furnace, above 935°C, and the effluent is collected in bubblers prior to analysis. The acidity of the effluent solution is quantified in terms of pH and conductivity. In aqueous solution, acids dissociate to give hydrogen ions H^+ , which give rise to the acidity, measured as pH, the negative logarithm of the hydrogen ion concentration.



In essence, this test identifies the presence of PVC or other halogenated polymers in a cable formulation, allowing the two main types of cables used in buildings (PVC based and low smoke zero halogen (LSZH)) to be distinguished.