



Common Test Methods for Cables under Fire Conditions

Reaction to Fire - IEC and corresponding European Standards

IEC Standard CENELEC Standard		CENELEC Standard	
No.	Title	No.	Title
IEC 60332 -1-1 ¹⁾ -1-2 ²⁾ -1-3	Tests on electric and optical cables under fire conditions Test on a single vertical insulated wire or cable - Apparatus Test on a single vertical insulated wire or cable - Procedure Test on a single vertical insulated wire or cable - Procedure for determination of flaming droplets/particles	EN 50265 -1 -2-1 ¹⁾ -2-2	Test for resistance to vertical flame propagation for a single insulated conductor or cable Apparatus Procedures - 1 kW pre-mixed flame Procedures - Diffusion flame
IEC 60332 -2-1 -2-2	Tests on electric cables under fire conditions Test on a single vertical insulated wire or cable - Apparatus Test on a single vertical insulated wire or cable - Procedure		
IEC 60332-3 ²⁾ -10 -21 -22 -23 -24 -25	Tests on bunched wires or cables Apparatus Procedures Category A F/R Procedures Category A Procedures Category B Procedures Category C Procedures - small cables	EN 50266 ²⁾ -1 -2-1 -2-2 -2-3 -2-4 -2-5	Test f. vertical flame spread of vertically mounted bunched wires o.cables Apparatus Procedures Category A F/R Procedures Category A Procedures Category B Procedures Category C Procedures - small cables
IEC 60754 ³⁾ -1 -2	Tests on gases evolved during combustion of materials from cables Determination of amount of halogen acid gas Determination of degree of acidity of gases evolved during the combustion of materials taken from electric cables by measuring pH and conductivity	EN 50267 ³⁾ -1 -2-1 -2-2 -2-3	Tests on gases evolved during combustion of materials from cables Apparatus Procedures - Determination of the amount of halogen acid gas Procedures - Determination of degree of acidity of gases for materials by measuring pH and conductivity Procedures - Determination of degree of acidity of gases for cables by determination of the weighted average of pH and conductivity
IEC 61034 ²⁾ -1 -2	Measurement of smoke density of cables burning u. defined conditions Test apparatus Test procedure and requirements	EN 50268 ²⁾ -1 -2	Measurement of smoke density of cables burning u. defined conditions Apparatus Procedure

Resistance to Fire (IEC 60 331)

IEC Standard		CENELEC Standard	
No.	Title	No.	Title
IEC 60331 -11 -21 -22 -23 -25	Tests for electric cables under fire conditions Circuit Integrity Apparatus - Fire alone at temperature of at least 750°C Procedures and requirements - Cables of rated voltage up to and including 0,6/1 kV Procedures Category A Procedures and requirements - Cables of rated voltage greater than 1 kV (under consideration) Proc. and requirements - Electric data cables Proc. and requirements - Optical fibres cables	(under consideration)	(under consideration)

¹⁾ Tests almost identical

²⁾ Tests identical

³⁾ The formal structure of the standards differs in some points, but procedure and requirements of tests are identical