

Communication cables — Specifications for test methods

Part 3-1: Mechanical test methods —
General requirements

The European Standard EN 50289-3-1:2001 has the status of a
British Standard

ICS 33.120.20; 29.060.20

National foreword

This British Standard is the official English language version of EN 50289-3-1:2001.

The UK participation in its preparation was entrusted by Technical Committee EPL/46, Cables, wire and waveguides, RF connectors, and accessories for communication and signalling, to Subcommittee EPL/46/1, Communication cables, which has the responsibility to:

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**Communication cables –
Specifications for test methods
Part 3-1: Mechanical test methods –
General requirements**

Câbles de communication –
Spécifications des méthodes d'essai
Partie 3-1: Méthodes d'essais mécaniques -
Prescriptions générales

Kommunikationskabel –
Spezifikationen für Prüfverfahren
Teil 3-1: Mechanische Prüfverfahren -
Allgemeine Anforderungen

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 46X, Communication cables.

This text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50289-3-1 on 2001-03-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2002-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2004-04-01

This European Standard has been prepared under the European Mandate M/212 given to CENELEC by the European Commission and the European Free Trade Association.

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1 Scope

The series of part 3 of the European Standard EN 50289 specifies the mechanical test methods for cables used in analogue and digital communication systems.

Part 3 of EN 50289 consists of the following documents:

- Part 3-1 General requirements
- Part 3-2 Tensile strength and elongation for conductor
- Part 3-3 Dimensional stability
- Part 3-4 Tensile strength, elongation and shrinkage of insulation and sheath
- Part 3-5 Crush resistance of the cable
- Part 3-6 Impact resistance of the cable
- Part 3-7 Abrasion resistance of the cable sheath
- Part 3-8 Abrasion resistance of cable sheath markings
- Part 3-9 Bending tests
- Part 3-10 Torsion and twisting
- Part 3-11 Cable cut-through resistance
- Part 3-12 Shot gun test
- Part 3-13 Eolian vibration
- Part 3-14 (free)
- Part 3-15 Hydrostatic pressure
- Part 3-16 Cable tensile performance
- Part 3-17 Adhesion of dielectric and sheath

Further test details (e.g. temperature, duration) and/or test requirements are given in the relevant cable standard.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).

EN 50290-1-2 ¹⁾ Communication cables – Part 1-2: Definitions

3 Definitions

For the purpose of this European Standard, the definitions of EN 50290-1-2 apply.

4 Sampling

4.1 Cable under test (CUT)

Unless otherwise specified in the relevant test method, the length of CUT shall be selected to take into account the dynamic range of the measuring equipment to yield the required level of accuracy. The length should be measured with an accuracy better than 1% unless otherwise stated in the relevant cable specification.

¹⁾ At draft stage.

4.2 Pre-conditioning

The CUT shall be pre-conditioned at a constant ambient temperature for such time as to allow the specimen temperature to stabilize according to 6.1.

5 Tests

The tests required and performance characteristics applicable to each type of cable are given in the relevant cable standard.

6 Test conditions

6.1 Ambient temperature

Tests shall be made at an ambient temperature within the range 15°C to 35°C unless otherwise specified.

6.2 Tolerance on temperature values

Unless otherwise specified in the relevant specification, the tolerance on temperature shall be $\pm 2^\circ\text{C}$.

7 Equipment calibration

7.1 Calibration

Equipment calibration shall be considered part of the quality system.

8 Test report

The test report shall include the relevant measuring conditions, the measurement results and their accuracy.

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