



BSI Standards Publication

Aerospace series – Stripping of electric cables

National foreword

This British Standard is the UK implementation of [EN 2812:2019](#). It supersedes [BS EN 2812:2009](#), which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ACE/6, Aerospace avionic electrical and fibre optic technology.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

Aerospace series - Stripping of electric cables

Série aérospatiale - Dénudages des câbles électriques

Luft- und Raumfahrt - Abisolieren
von elektrischen Leitungen

This European Standard was approved by CEN on 8 January 2018.

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Contents

Page

European foreword	iii
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Stripping processes and associated tools	4
4.1 General recommendations	4
4.2 Manual stripping	5
4.2.1 Use	5
4.2.2 Application	5
4.3 Mechanical stripping	5
4.3.1 Use	5
4.3.2 Stripping with manual tools	5
4.3.3 Stripping with power tools	5
4.4 Laser stripping	6
4.4.1 Use	6
4.4.2 Application	6
4.5 Thermal stripping	6
4.5.1 Use	6
4.5.2 Application	6
5 Identification, inspection and calibration	7
5.1 Manual stripping tools	7
5.1.1 Identification	7
5.1.2 Inspection	7
5.2 Mechanical stripping tools	7
5.2.1 Identification	7
5.2.2 Inspection	7
5.2.3 Calibration	7
5.3 Laser stripping tools	7
5.3.1 Identification	7
5.3.2 Inspection	8
5.3.3 Calibration	8
5.4 Thermal stripping tools	8
5.4.1 Identification	8
5.4.2 Inspection	8
5.4.3 Calibration	8
6 Qualification	9
6.1 General	9
6.2 Method	9
6.3 Requirements	10
6.3.1 Manual stripping	10
6.3.2 Mechanical stripping	10
6.3.3 Laser stripping	10
6.3.4 Thermal stripping	10
7 Health, safety and environmental aspects	11
Annex A (normative) Defects illustrations	12
Annex B (informative) Mechanical stripping	16
Annex C (informative) Laser stripping	17
Annex D (informative) Thermal stripping	18

European foreword

This document ([EN 2812:2019](#)) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2019, and conflicting national standards shall be withdrawn at the latest by December 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes [EN 2812:2009](#).

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document specifies the conditions for stripping and inspection of stripping tools and the stripped ends of electric cables for aerospace applications.

Various stripping processes exist. The choice of a process depends upon the properties of the particular cables to be stripped and/or on the specific requirements for the end product to be achieved.

The processes specified today in this document are:

- a) manual stripping;
- b) mechanical stripping;
- c) laser stripping;
- d) thermal stripping.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

[EN 2083](#), *Aerospace series — Copper or copper alloy conductors for electrical cables — Product standard*

[EN 3475-701](#), *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 701: Strippability and adherence of insulation to the conductor*

[EN 3719](#), *Aerospace series — Aluminium or aluminium alloy conductors for electrical cables — Product standard*

[EN 4434](#), *Aerospace series — Copper or copper alloy lightweight conductors for electrical cables — Product standard (Normal and tight tolerances)*

[EN 4651](#), *Aerospace series — Copper-clad aluminium alloy conductors for electrical cables — Product standard*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Stripping processes and associated tools

4.1 General recommendations

Precise definition of tools to use on a particular wire or cable standard is under the responsibility of the user.

It is particularly important to know from which ASD Product Norm conductors are coming (for examples: [EN 2083](#), [EN 3719](#), [EN 4434](#), [EN 4651](#)) for the mechanical stripping process.

Availability of a common tool able to strip different gauges or cable sizes is recommended.

If tools are designed for particular applications, differentiation by colours is recommended.

Size and weight of tools has to be appropriate for the envisaged use.

When it is essential to control the length of insulation to be removed an adjustable abutment must be part of the tool.

4.2 Manual stripping

4.2.1 Use

The use of this process must be strictly limited to insulations and jackets of the cables for which other methods are impractical. Nevertheless, with thermal stripping and the arrival of small laser machines, this manual practice must be progressively eliminated for aerospace use and stay permissible only for small batches.

4.2.2 Application

Manual stripping by scalpel, razor blade or other cutting tool is carried out on cables over 5 mm² cross-section, sheaths of shielded cables, fire-resistant cables and coaxial cables, unless another stripping process is specified.

4.3 Mechanical stripping

4.3.1 Use

This process is generally the most used in particular for single wires. Various power tools are also adapted to strip round cables, such as single wire screened jacketed and coaxial, and flat cables.

The simplicity of manual pliers makes these tools ideal for work in the field.

For illustration, see [Annex B](#) (informative).

4.3.2 Stripping with manual tools

The blades of tools can have different profiles and dimensions. Various assembly shapes are now available.

A blade can have several marked cavities of different sizes. When the tool is closed, the edges of the blades shall be in the same plane and form a cutting circumference whose diameter is greater than the maximum diameter of the conductor of the cable to be stripped. Blades must be replaced as pairs.

The manual stripping tools with V shaped cutting blades or shearing type blades are forbidden (see Figure 1 and Figure 2).



Figure 1 — V shaped cutting blades

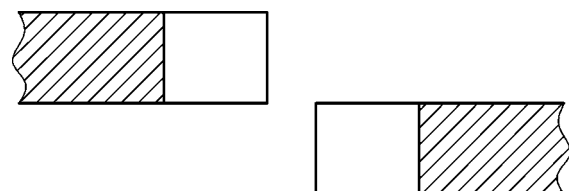


Figure 2 — Shearing type blades

4.3.3 Stripping with power tools

These tools use blades with the same general characteristics as those defined in [4.3.2](#).