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**Fibre reinforced polymer (FRP)  
reinforcement for concrete  
structures —**

**Part 2:  
Specifications of CFRP strips**

*Polymère renforcé par des fibres (PRF) pour l'armature du béton —  
Partie 2: Spécifications des bandes en PRFC*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 71, *Concrete, reinforced concrete and pre-stressed concrete*, Subcommittee SC 6, *Non-traditional reinforcing materials for concrete structures*.

A list of all parts in the ISO 18319 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Fibre reinforced polymer (FRP) reinforcement for concrete structures —

## Part 2: Specifications of CFRP strips

### 1 Scope

This document specifies requirements for unidirectional carbon fibre-reinforced polymer (CFRP) strips as external-bonded reinforcements on the concrete substrate. This document is applicable for the CFRP strips that:

- consist of carbon fibre and thermoset resin;
- are manufactured by pultrusion method;
- have a carbon fibre fraction over 60 % by volume; and
- have a thickness within 3 mm.

This document specifies the methodologies to express the mechanical properties as characteristic values, appearance and dimensions, and sampling test.

### 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.

ISO 10406-3, *Fibre-reinforced polymer (FRP) reinforcement of concrete — Test methods — Part 3: CFRP strips*

### 3 Terms and definitions

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

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

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

#### 3.1

##### **straightness**

lateral warped deformation perpendicular to the longitudinal axis of strip

#### 3.2

##### **initial inspection**

inspection carried out by the manufacturer of the product for the initial production from the relevant production apparatus, and the cases of change in the production method, product design and raw materials to be used