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Fibre-reinforced polymer (FRP) reinforcement for concrete structures — Specifications of FRP sheets

Polymère renforcé par des fibres (PRF) pour l'armature du béton — Spécifications des feuilles en PRF

Reference number
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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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Foreword

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword — Supplementary information.

The committee responsible for this document is ISO/TC 71, *Concrete, reinforced concrete and pre-stressed concrete*, Subcommittee SC 6, *Non-traditional reinforcing materials for concrete structures*.

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Fibre-reinforced polymer (FRP) reinforcement for concrete structures — Specifications of FRP sheets

1 Scope

This International Standard specifies requirements for fibre-reinforced polymer (FRP) sheets for upgrading of concrete members. The methodologies to express the mechanical properties as characteristic values, appearance and dimensions, and sampling test are specified in this International Standard. The properties for design are calculated from the characteristic values, as prescribed in an appropriate design code which is in accordance with ISO 14484. The fibre orientation of the FRP sheets covered by this International Standard is unidirectional.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 291, *Plastics — Standard atmospheres for conditioning and testing*

ISO 10406-2, *Fibre-reinforced polymer (FRP) reinforcement of concrete — Test methods — Part 2: FRP sheets*

ISO 5725, *Accuracy (trueness and precision) of measurement methods and results*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10406-2 and the following apply.

3.1
dry sheet
fibres in sheet form including sizing agent and weft, before application of the saturating resin matrix

3.2
sizing agent
any material applied to fibres to facilitate the handling and use of the fibres

Note 1 to entry: 'Sizing agent' is synonymous with 'size' which is described in ISO 10548.

3.3
weft
thread to shape bundles in sheet form

4 Symbols

See Table 1.

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