
**Fibre-reinforced polymer (FRP)
reinforcement of concrete — Test
methods —**

**Part 2:
FRP sheets**

*Polymère renforcé par des fibres (PRF) pour l'armature du béton —
Méthodes d'essai —*

Partie 2: Feuilles en PRF





COPYRIGHT PROTECTED DOCUMENT

© ISO 2015

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
3.1 Definitions.....	1
3.2 Symbols.....	3
4 General provision concerning test pieces	5
5 Test method for determining tensile properties	5
5.1 Test pieces.....	5
5.2 Testing machine and measuring devices.....	9
5.3 Test method.....	9
5.4 Calculation and expression of test results.....	10
5.5 Test report.....	11
6 Test method for overlap splice strength	12
6.1 Test pieces.....	12
6.2 Testing machine.....	14
6.3 Test method.....	14
6.4 Calculation and expression of test results.....	15
6.5 Test report.....	15
7 Test method for determining bond properties of FRP sheets to concrete	16
7.1 Test pieces.....	16
7.2 Testing machine and measuring devices.....	21
7.3 Test method.....	21
7.4 Calculation and expression of test results.....	21
7.5 Test report.....	22
8 Test method for direct pull-off strength of FRP sheets with concrete	23
8.1 Test pieces.....	23
8.2 Testing machine and measuring devices.....	25
8.3 Test method.....	25
8.4 Calculation and expression of test results.....	25
8.5 Test report.....	26
9 Test method for freeze/thaw resistance	26
9.1 Test pieces.....	26
9.2 Testing machine and measuring devices.....	26
9.3 Test method.....	27
9.4 Calculation and expression of test results.....	27
9.5 Test report.....	28
10 Test method for exposure to laboratory light sources	29
10.1 Test pieces.....	29
10.2 Testing machine and measuring devices.....	29
10.3 Test method.....	30
10.4 Calculation and expression of test results.....	30
10.5 Test report.....	31
11 Test method for durability	32
11.1 Types of test methods for durability.....	32
11.2 Test piece.....	32
11.3 Test method.....	33
11.4 Calculation and expression of test results.....	34
11.5 Test report.....	34

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).

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).

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

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*.

This second edition cancels and replaces the second edition (ISO 10406:2008), which has been technically revised.

ISO 10406 consists of the following parts, under the general title *Fibre-reinforced polymer (FRP) reinforcement of concrete — Test methods*:

- *Part 1: FRP bars and grids*
- *Part 2: FRP sheets*