
**Timber structures — Structural
insulated panel roof construction —
Test methods**

*Structures en bois — Panneaux sandwich porteurs isolants pour
toitures — Méthode d'essais*



Reference number
ISO 18402:2016(E)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

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
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols	2
5 Product evaluation	4
5.1 Tests applicable to the panel construction.....	4
5.2 Tests applicable to roof panels.....	4
6 Structural testing	4
6.1 Conditioning.....	4
6.1.1 Standard conditioning.....	4
6.1.2 Alternative conditionings.....	4
6.2 Tensile test on the core material and bonding between faces and core.....	5
6.2.1 Specimen size and sampling.....	5
6.2.2 Conditioning.....	5
6.2.3 Loading method and test procedure.....	5
6.2.4 Reporting results.....	6
6.3 Shear test on panel assembly (short-term loading).....	7
6.3.1 Specimen size and sampling.....	7
6.3.2 Loading method and test procedure.....	7
6.3.3 Reporting results.....	8
6.4 Out of plane bending (stiffness and strength test).....	9
6.4.1 Panels subjected to uniform loading.....	9
6.4.2 Panels subjected to concentrated loads.....	11
6.5 In-plane (diaphragm) monotonic load racking stiffness and strength test.....	11
6.5.1 Test assembly.....	12
6.6 Creep testing.....	17
7 Accelerated ageing (durability) testing	17
Annex A (informative) Testing for creep by means of ASTM C480	18
Bibliography	21