



Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN ISO 14126:2023

Fibre-reinforced plastic composites - Determination of compressive properties in the in-plane direction (ISO 14126:2023)

Faserverstärkte Kunststoffe -
Bestimmung der Druckeigenschaften in
der Laminebene (ISO 14126:2023)

Composites plastiques renforcés de
fibres - Détermination des
caractéristiques en compression dans le
plan (ISO 14126:2023)

10/2023



National Foreword

This European Standard EN ISO 14126:2023 was adopted as Luxembourgish Standard ILNAS-EN ISO 14126:2023.

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

THIS PUBLICATION IS COPYRIGHT PROTECTED

Nothing from this publication may be reproduced or utilized in any form or by any mean - electronic, mechanical, photocopying or any other data carries without prior permission!

ILNAS-EN ISO 14126:2023

EUROPEAN STANDARD **EN ISO 14126**

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2023

ICS 83.120

Supersedes EN ISO 14126:1999, EN ISO
14126:1999/AC:2002

English Version

**Fibre-reinforced plastic composites - Determination of
compressive properties in the in-plane direction (ISO
14126:2023)**

Composites plastiques renforcés de fibres -
Détermination des caractéristiques en compression
dans le plan (ISO 14126:2023)

Faserverstärkte Kunststoffe - Bestimmung der
Druckeigenschaften in der Laminebene (ISO
14126:2023)

This European Standard was approved by CEN on 5 October 2023.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Türkiye and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	3

ILNAS-EN ISO 14126:2023 - Preview only Copy via ILNAS e-Shop

European foreword

This document (EN ISO 14126:2023) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by SIS.

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 April 2024, and conflicting national standards shall be withdrawn at the latest by April 2024.

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 ISO 14126:1999, EN ISO 14126:1999/AC:2002.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 14126:2023 has been approved by CEN as EN ISO 14126:2023 without any modification.

Fibre-reinforced plastic composites — Determination of compressive properties in the in-plane direction

*Composites plastiques renforcés de fibres — Détermination des
caractéristiques en compression dans le plan*

**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2023

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword.....	v
Introduction.....	vi
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	2
4 Principle.....	3
5 Apparatus.....	4
5.1 Test machine.....	4
5.1.1 General.....	4
5.1.2 Speed of testing.....	4
5.1.3 Load measurement.....	4
5.2 Strain measurement.....	4
5.3 Micrometer.....	5
5.4 Loading fixtures.....	5
5.4.1 General.....	5
5.4.2 Method 1: Shear loading.....	5
5.4.3 Method 2: Combined loading.....	7
6 Test specimens.....	8
6.1 Shape and dimensions.....	8
6.1.1 Type A specimen.....	8
6.1.2 Type B specimen.....	9
6.2 Preparation.....	10
6.2.1 General.....	10
6.2.2 End-tab material.....	10
6.2.3 Application of end tabs to specimens.....	10
6.2.4 Machining the specimens.....	10
6.3 Checking specimen quality.....	10
6.4 Anisotropy.....	11
7 Number of test specimens.....	11
8 Conditioning.....	11
9 Procedures.....	11
10 Expression of results.....	13
10.1 Compressive strength calculation.....	13
10.2 Compressive modulus calculation.....	13
10.3 Compressive failure strain calculation.....	14
10.4 Statistical parameters.....	14
10.5 Significant figures.....	14
11 Precision.....	14
12 Test report.....	15
Annex A (normative) Alignment of specimen and loading train.....	16
Annex B (normative) Specimen preparation.....	17
Annex C (informative) Compression fixtures for method 1.....	19
Annex D (informative) Compression fixtures for method 2.....	21
Annex E (informative) Euler buckling criteria.....	25
Annex F (informative) Predicted tab length.....	26