



**International
Standard**

ISO 20589

**Glass in building — Determination
of the emissivity**

First edition

**iTeh Standards
(<https://standards.iteh.ai>)
Document Preview**

[ISO/PRF 20589](https://standards.iteh.ai/catalog/standards/iso/c7d6b9c6-454d-48e7-82fe-b783415c9c03/iso-prf-20589)

<https://standards.iteh.ai/catalog/standards/iso/c7d6b9c6-454d-48e7-82fe-b783415c9c03/iso-prf-20589>

PROOF/ÉPREUVE

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO/PRF 20589

<https://standards.iteh.ai/catalog/standards/iso/c7d6b9c6-454d-48e7-82fe-b783415c9c03/iso-prf-20589>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2025

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

PROOF/ÉPREUVE

© ISO 2025 – All rights reserved

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Abbreviations	2
5 Brief outline of the procedure to determine corrected emissivity	3
6 Spectral normal reflectance measurements and calculations	3
6.1 Specimen preparation	3
6.2 Spectral normal reflectance measurements	4
6.2.1 General	4
6.2.2 Test apparatus	4
6.2.3 Measurement	4
6.2.4 Accuracy	5
6.3 Interpolation	5
6.4 Determination of normal reflectance	5
6.4.1 General	5
6.4.2 Calculation method	5
6.4.3 Noise criterion	5
7 Calculation of total normal emissivity and corrected emissivity	6
7.1 Total normal emissivity	6
7.2 Corrected emissivity	6
8 Test report	6
Annex A (normative) Table for determining total normal reflectance	8
Annex B (informative) Procedures to improve the accuracy of spectral normal reflectance measurements	9
Annex C (informative) Transmittance and diffuse reflectance measurements and calculation of total normal transmittance	11
Annex D (informative) Determination of absolute reflectance by comparing the energy of the beam reflected from the specimen to that of the incident beam	12
Bibliography	16

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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by the European Committee for Standardization (CEN) (as EN 12898:2019) and was adopted, without modification other than those given below by Technical Committee ISO/TC 160, *Glass in building*.

- informative parts of the Scope have been moved to the Introduction;
- “this European Standard” was changed to “this document”;
- references to EN standards have been changed to references to the corresponding ISO standards;
- clarifications have been made to [Figure D.1](#), [Figure D.2](#), [Figure D.3](#) and [Figure D.4](#), and their keys;
- the term “sample” has been changed to “specimen”.

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.