BS ISO 17859:2015

BSI Standards Publication

Fine ceramics (advanced ceramics, advanced technical ceramics) — Measurement method of piezoelectric strain at high electric field

bsi.

...making excellence a habit.™

Document Sharing Hub

National foreword

This British Standard is the UK implementation of ISO 17859:2015.

The UK participation in its preparation was entrusted to Technical Committee RPI/13, Advanced technical ceramics.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2015.
Published by BSI Standards Limited 2015

ISBN 978 0 580 79374 5

ICS 81.060.30

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2015.

Amendments/corrigenda issued since publication

Date	Text affected

Documents
Document Sharing Hub

Full document details: BS ISO 17859:2015

INTERNATIONAL STANDARD

ISO 17859

First edition
2015-09-01

Fine ceramics (advanced ceramics, advanced technical ceramics) — Measurement method of piezoelectric strain at high electric field

Céramiques techniques — Méthode de mesurage de la contrainte piézoélectrique à champ électrique élevé

Reference number
ISO 17859:2015(E)

Documents
Document Sharing Hub

© ISO 2015

Full document details: BS ISO 17859:2015

COPYRIGHT PROTECTED DOCUMENT

© ISO 2015, 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

© ISO 2015 – All rights reserved

Documents
Document Sharing Hub

Full document details: BS ISO 17859:2015

Contents

Page

Foreword ... **iv**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions, and symbols ... **1**
3.1 Terms and definitions ... 1
3.2 Symbols ... 2

4 Measuring environment ... **2**

5 Specimens ... **2**
5.1 General ... 2
5.2 Shape and size ... 3
5.3 Electrodes ... 3
5.4 Polarization ... 3

6 Principle ... **3**

7 Measurement equipment ... **3**
7.1 Equipment ... 3
7.2 Components of equipment ... 4
7.3 Environment of specimen holder ... 5
7.4 Calibration of measurement equipment ... 5

8 Measurement conditions ... **5**

9 Measurement procedures ... **5**

10 Calculations and results ... **6**

11 Test report ... **6**

Annex A (informative) **Example of reference sample** ... **8**

© ISO 2015 – All rights reserved

Documents
Document Sharing Hub
Full document details: BS ISO 17859:2015

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 206, *Fine ceramics*.

© ISO 2015 – All rights reserved
Documents
Document Sharing Hub
Full document details: BS ISO 17859:2015