

# Plastics — Determination of resistance to environmental stress cracking (ESC) — Bent strip method

The European Standard EN ISO 4599:1996 has the status of a British Standard

ICS 83.080.01

# Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee PRI/21, Testing of plastics, upon which the following bodies were represented:

- The British Apparel and Textile Confederation
- British Plastics Federation
- Department of the Environment (Building Research Establishment)
- Department of Trade and Industry (National Physical Laboratory)
- Electrical and Electronic Insulation Association (BEAMA Ltd.)
- GAMBICA (BEAMA Ltd.)
- Institute of Materials
- Ministry of Defence
- Packaging and Industrial Films Association
- PIRA International
- RAPRA Technology Ltd
- Royal Society of Chemistry

This British Standard, having been prepared under the direction of the Sector Board for Materials and Chemicals, was published under the authority of the Standards Board and comes into effect on 15 May 1997

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The following BSI references relate to the work on this standard:  
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## Amendments issued since publication

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# National foreword

This British Standard has been prepared by Technical Committee PRI/21 and is the English language version of EN ISO 4599:1996 *Plastics — Determination of resistance to environmental stress cracking (ESC) — Bent strip method* published by the European Committee for Standardization (CEN). It is identical with ISO 4599:1986 published by the International Organization for Standardization (ISO).

In 1996 the European Committee for Standardization (CEN) accepted ISO 4599:1986 as European Standard EN ISO 4599:1996. As a consequence of implementing the European Standard this British Standard is renumbered as BS EN ISO 4599:1997 and any reference to BS 2782-8: Method 832A:1991 should be read as a reference to BS EN ISO 4599:1997.

## Cross-references

| International standard | Corresponding British Standard                                                                                                                                                                                                                                                      |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ISO 178:1993           | BS EN ISO 178:1996 <i>Plastics — Determination of flexural properties</i>                                                                                                                                                                                                           |
| ISO 179:1993           | BS EN ISO 179:1996 <i>Plastics — Determination of Charpy impact strength</i>                                                                                                                                                                                                        |
| ISO 527-1:1993         | BS EN ISO 527-1:1996 <i>Plastics — Determination of tensile properties</i><br>Part 1: <i>General principles</i>                                                                                                                                                                     |
| ISO 527-2:1993         | BS EN ISO 527-2:1996 <i>Plastics — Determination of tensile properties</i><br>Part 2: <i>Test conditions for moulding and extrusion plastics</i>                                                                                                                                    |
| ISO 527-3:1995         | BS EN ISO 527-3:1996 <i>Plastics — Determination of tensile properties</i><br>Part 3: <i>Test conditions for films and sheets</i>                                                                                                                                                   |
| ISO 2818:1994          | BS EN ISO 2818:1996 <i>Methods of testing plastics. Sampling and test specimen preparation. Preparation by machining</i>                                                                                                                                                            |
| ISO 2557 <sup>a</sup>  | BS 2782: <i>Methods of testing plastics.</i><br>Part 9: <i>Sampling and test specimen preparation</i><br>Method 940A: 1990 <i>Preparation of test specimens of amorphous thermoplastics in the form of bars with a specified reversion by injection moulding rectangular plates</i> |
| ISO 4600:1992          | BS 2782: <i>Methods of testing plastics.</i><br>Part 8: <i>Other properties</i><br>Method 831A and 831B: 1993 <i>Determination of environmental stress cracking (ESC) by the ball or pin impression method</i>                                                                      |
| ISO 6252: 1992         | BS 2782: <i>Methods of testing plastics.</i><br>Part 8: <i>Other properties</i><br>Methods 833A to 833C:1993 <i>Determination of environmental stress cracking (ESC) by the constant tensile stress method</i>                                                                      |

<sup>a</sup> NOTE Since the publication of ISO 4599:1986, ISO 2557 has been revised and is now a two-part standard and the identical British Standards are cross-referenced.

The Technical Committee has reviewed the provisions of ISO 291 and ISO 294 to which references are made and has decided that they are acceptable for use in conjunction with this Standard.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

### Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, the EN ISO title page, pages 2 to 10, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

