



BSI Standards Publication

**Electrical steel — Reverse bend test method  
for electrical steel strip and sheet**

---

## National foreword

This Published Document is the UK implementation of IEC/TR 63114:2018.

The UK participation in its preparation was entrusted to Technical Committee ISE/108, Magnetic Alloys and Steels.

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 2018  
Published by BSI Standards Limited 2018

ISBN 978 0 580 97759 6

ICS 29.030

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

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 May 2018.

### Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

---



# IEC TR 63114

Edition 1.0 2018-04

## TECHNICAL REPORT

---

**Electrical steel – Reverse bend test method for electrical steel strip and sheet**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

---

ICS 29.030

ISBN 978-2-8322-5616-9

**Warning! Make sure that you obtained this publication from an authorized distributor.**

CONTENTS

FOREWORD..... 3

INTRODUCTION..... 5

1 Scope..... 6

2 Normative references ..... 6

3 Terms and definitions ..... 6

4 Symbols and designations ..... 7

5 Principles ..... 7

6 Apparatus..... 7

7 Test specimen ..... 8

8 Procedure..... 8

9 Expression of results ..... 10

Annex A (informative) An example of the apparatus used for the reverse bend test ..... 11

Annex B (informative) Dependence of the number of bends on tensile force applied to the test specimen..... 13

    B.1 General..... 13

    B.2 Test results..... 13

    B.3 Deformation situation of the specimen after failure..... 14

    B.4 Conclusions ..... 15

Bibliography..... 16

Figure 1 – Apparatus for the reverse bend test of Mode A and Mode B ..... 7

Figure 2 – Schematic view of the mandrels for Mode A and Mode B ..... 8

Figure 3 – Method of counting reverse bends ..... 9

Figure A.1 – Schematic view of a specially designed apparatus for the reverse bend test..... 11

Figure B.1 – Number of bends for different tensile forces with Mode A..... 13

Figure B.2 – Number of bends for different tensile forces with Mode B..... 14

Figure B.3 – Side views of the specimens after failure with Mode A and Mode B for different tensile forces ..... 14