BS 8597:2015

BSI Standards Publication

# Steels for the reinforcement of concrete – Reinforcement couplers – Requirements and test methods

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Published by BSI Standards Limited 2015

ISBN 978 0 580 83058 7

ICS 77.140.15

The following BSI references relate to the work on this document:
Committee reference ISE/104
Draft for comment 14/30283495 DC

## Publication history

First published August 2015

## Amendments issued since publication

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

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# Foreword

## Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 August 2015. It was prepared by Technical Committee ISE/104, *Concrete reinforcing and pre-stressing steels*. A list of organizations represented on this committee can be obtained on request to its secretary.

## Information about this document

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## Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

## Contractual and legal considerations

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

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

# 1 Scope

This British Standard specifies requirements and test methods for steel reinforcement couplers (hereafter called couplers) to be used for the mechanical splicing of steel reinforcing bars. It specifies requirements for couplers to be used for mechanical splices in reinforced concrete structures under predominantly static loads and additional requirements for couplers to be used in elements of structures subject to high cycle elastic fatigue loading. It also specifies requirements for the evaluation of conformity of couplers.

This British Standard does not specify requirements for couplers which are to be used for mechanical splices in reinforced concrete structures subject to low cycle loading in the elastic-plastic range.

This British Standard specifies performance requirements for couplers. The couplers are tested as part of a mechanical splice between two lengths of reinforcing steel, manufactured in accordance with BS 4449 or BS 6744. The performance tests specified are therefore for mechanical splices incorporating the coupler being assessed. The requirements of this standard apply to the manufacture of couplers and not the assembly or installation of mechanical splices on site.

*NOTE Instructions for assembly or installation of couplers can be obtained from the manufacturer.*

# 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 4449, *Steel for the reinforcement of concrete – Weldable reinforcing steel – Bar, coil and decoiled product – Specification*

BS EN ISO 7500-1, *Metallic materials – Verification of static uniaxial testing machines – Part 1: Tension/compression testing machines – Verification and calibration of the force-measuring system*

BS EN ISO 9513:2012, *Metallic materials – Calibration of extensometer systems used in uniaxial testing*

BS EN ISO 15630-1:2010, *Steel for the reinforcement and prestressing of concrete – Test methods – Part 1: Reinforcing bars, wire rod and wire*

BS ISO 16020, *Steel for the reinforcement and prestressing of concrete – Vocabulary*

# 3 Terms, definitions and symbols

## 3.1 Terms and definitions

For the purposes of this British Standard, the terms and definitions given in BS ISO 16020 and the following apply.

### 3.1.1 characteristic value

value of a material or product property having a prescribed probability of not being attained in a hypothetical unlimited test series

*NOTE This value generally corresponds to a specific fractile of the assumed statistical distribution of the particular property of the material or product.*