

Steel fabric for the reinforcement of concrete

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Committees responsible for this British Standard

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- ISE/9 Steel for concrete reinforcement
- ISE/9 Bars, wire and fabric for concrete reinforcement

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Foreword

This British Standard has been prepared by Subcommittee ISE/9/1.

A British Standard does not purport to include all 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 and ii, pages 1 to 8, an inside back cover and a back cover.

1 Scope

This British Standard specifies requirements for factory-made welded steel fabric manufactured from plain or deformed wires conforming to BS 4449 or BS 4482 for reinforcement of concrete.

2 References

The following normative documents contain provisions that, through reference in this text, constitute provisions of this British Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. For undated references, the latest edition of the publication referred to applies.

BS 4449:1997, *Specification for carbon steel bars for the reinforcement of concrete*.

BS 4482:1985, *Specification for cold reduced steel wire for the reinforcement of concrete*.

BS 4483:1985, *Specification for steel fabric for the reinforcement of concrete*.

BS 4466:1989, *Specification for scheduling, dimensioning, bending and cutting of steel reinforcement for concrete*.

BS 8110-1:1997, *Structural use of concrete — Code of practice for design and construction*.

ISO 10287:1992, *Steel for the reinforcement of concrete — Determination of strength of joints in welded fabric*.

3 Definitions

For the purposes of this British Standard the following definitions apply.

3.1

batch

quantity of fabric of one type or steel grade presented for examination and test at one time

3.2

bundle

two or more sheets of fabric bound together

3.3

transverse wire

reinforcing element perpendicular to the manufacturing direction of the fabric

3.4

longitudinal wire

reinforcing element in the manufacturing direction of the fabric

3.5

welded fabric

arrangement of longitudinal and transverse bars or wires of the same or different diameter and length, arranged substantially at right angles to each other, and factory electrical resistance welded together by machine at the points of intersection

3.6

nominal size

diameter of a circle with an area equal to the cross-sectional area of the wire

3.7

length

(of sheet) longest side of a sheet of fabric, irrespective of the manufacturing direction

3.8

pitch

(of fabric) centre to centre distance of wires in a sheet of fabric

3.9

width

(of sheet) shortest side of a sheet of fabric, irrespective of the manufacturing direction

4 Information to be obtained from the purchaser

To assist in supplying the required fabric, the following information shall be obtained from the purchaser at the time of enquiry and/or order:

- a) the type of wire required and the number of the British Standard to which it conforms, i.e. BS 4449 or BS 4482;
- b) the required wire size, grade and mesh arrangement;
- c) the dimensions of each sheet required;
- d) the quantity of each sheet required.

5 Dimensions

5.1 The dimensions of the individual wires shall conform to the appropriate British Standard, i.e. BS 4449 and BS 4482, except for D49 wrapping fabric of 2.5 mm diameter.

5.2 The combination of mesh, wire size, wire grade and sheet dimensions for welded steel fabric shall be specifiable in accordance with annex B, or, for the preferred range of standard fabric types, shall be as specified in Table 1. The combination shall conform to the tolerances specified in clause 10.

6 Cross-sectional area and mass

6.1 The cross-sectional area and mass of an individual sheet shall be derived from the specified dimensions of the sheet, the nominal wire sizes and the specified pitches for the wires.

6.2 The cross-sectional area and mass per square metre of the preferred range of standard fabric types shall be as specified in Table 1.

6.3 The actual cross-sectional area and mass of welded steel fabric shall conform to the tolerances specified in clause 10.