

BS EN 12390-1:2012
EN 12390-1:2012 (E)

4.2 Cubes

4.2.1 Nominal sizes

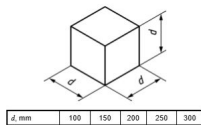


Figure 1 — Cube — nominal sizes

4.2.2 Designated sizes

Designated sizes may be selected within $\pm 10\%$ of the nominal size

4.2.3 Tolerances

4.2.3.1 Between moulded surfaces the tolerance on the designated size (d) is 1.0 %.

4.2.3.2 Between the top trowelled face and the moulded bottom face the tolerance on the designated size is 1.5 %.

4.2.3.3 The tolerance on the flatness of the potential load bearing surfaces is 0.0006/d mm (see Annex B).

4.2.3.4 The tolerance on the perpendicularity of the sides of the cube, with reference to the base, as cast, is 0.5 mm.

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5 Moulds

5.1 General

5.1.1 Moulds shall be watertight and non-absorbent.

NOTE The joints of moulds can be coated with wax, oil or grease to achieve watertightness.

5.1.2 Moulds, other than calibrated moulds in accordance with 5.2, may be made from any material which is suitable for producing concrete specimens.

5.2 Calibrated moulds

5.2.1 Calibrated moulds shall be made of **steel or cast iron**, which shall be the **reference** materials, if moulds are manufactured from other materials, in-use performance test data shall be available which demonstrates long-term equivalence with steel or cast-iron calibrated moulds.

5.2.2 All parts of calibrated moulds shall be sufficiently robust to prevent distortion on assembly and in use.

5.2.3 The components of the mould, with the possible exception of the base plate, shall have identification marks.

5.2.4 Calibrated moulds for cubical specimens

5.2.4.1 Moulds shall be suitable for producing specimens conforming to 4.2.

5.2.4.2 The tolerance on the designated size (d) of an assembled mould is **0.5 %**.

5.2.4.3 The tolerance on the **flatness** of the four side faces of the mould is **0.0003/d mm** for new moulds and **0.0005/d mm** for moulds in use.

5.2.4.4 The tolerance on the **flatness of the top surface of the baseplate** of the moulds is **0.0006/d mm** for new moulds and **0.001/d mm** for moulds in use.

5.2.4.5 The tolerance on the **perpendicularity** of the sides of a mould with respect to the adjacent sides and of the sides in relation to the base is **0.5 mm**.

NOTE If necessary, the flatness tolerance can be measured with the mould disassembled (see Annex B).

Annex B
(normative)

Assessment of flatness of specimens and moulds

For the purpose of this European Standard, flatness shall be assessed by the measurement of straightness in four positions, as shown in Figure B.1, for circular or rectilinear surfaces. Other methods giving at least the same degree of accuracy may be used.

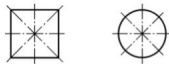


Figure B.1 — Measurement pattern for flatness of circular and rectilinear surfaces

The tolerance on straightness shall be equal to the tolerance on the flatness specified in 4.2, 4.3 or 4.4 as appropriate, for specimens, and in 5.2.4, 5.2.5 and 5.2.6, as appropriate, for moulds.

NOTE A steel straight-edge of rectangular section, and bevel gauges, with blades 0.03 mm to 1.00 mm thick, are considered suitable for this measurement, which characteristics might be defined on a national level.