

## **Masonry units — Methods of test**

### **Part 10:**

#### **Determination of flatness of faces of aggregate concrete, manufactured stone and natural stone masonry units**

## **DKS 2802-10:2019**

### **TECHNICAL COMMITTEE REPRESENTATION**

The following organizations were represented on the Technical Committee:

National Housing Corporation  
Kenya Clay Products Ltd  
Coast Clay Works Ltd  
Consumer Information Network  
University of Nairobi  
Kenya Industrial Research & Development Institute  
Architectural Association of Kenya  
M&O Consulting Engineers  
Kenya Association of Manufacturers,  
Kenya National Federation of Jua Kali Association  
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## **Determination of flatness of faces of aggregate concrete, manufactured stone and natural stone masonry units**

PUBLIC REVIEW DRAFT

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# **DKS 2802-10:2019**

## **Foreword**

This Kenya Standard was prepared by the Clay and Clay Products Technical Committee under the guidance of the Standards Projects Committee and in accordance with the procedures of the Kenya Bureau of Standards.

During the development of this standard, reference was made to the following documents:

BS EN 772-20:2000 Methods of test for masonry units - Part 20: Determination of flatness of faces of aggregate concrete, manufactured stone and natural stone masonry units

Acknowledgement is hereby made for the assistance received from these sources.

PUBLIC REVIEW DRAFT

## Masonry units — Methods of test

### Part 10:

## Determination of flatness of faces of aggregate concrete, manufactured stone and natural stone masonry units

### 1. Scope

This Kenyan Standard specifies a method for determining the flatness of faces of aggregate concrete, manufactured stone and natural stone masonry units.

### 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.

prEN 771-3 Specification for masonry units - Part 3: Aggregate concrete masonry units (dense and lightweight aggregates)

prEN 771-5 Specification for masonry units - Part 5: Manufactured stone masonry units

prEN 771-6 Specification for masonry units -Part 6: Natural stone masonry units

### 3. Apparatus

3.1. Graduated **straight edge** which is longer than the diagonals of the long faces of the unit being tested.

3.2. **Set of feeler gauges** capable of measuring with an accuracy to 0,05 mm.

### 4. Preparation of specimens

#### 4.1. Sampling

The method of sampling shall be stated in the test report. The minimum number of specimens shall be six, but a larger minimum number may be specified in the product specification, in which case that larger number shall be used.

#### 4.2. Surface treatment

Remove any superfluous material adhering to the unit as a result of the manufacturing process before measuring.

### 5. Procedure

Ensure that the masonry unit is positioned in a stable manner prior to measurement. For each face specified as flat measure the length of the two diagonals with the graduated straight edge (3.1) to the nearest 0,5 mm. Place the straight edge across each diagonal in turn and use the feeler gauge (3.2) to measure the distance from the face of the masonry unit to the straight edge. Where the face of the masonry unit is concave measure

the greatest distance from the face of the straight edge to the nearest 0,05 mm. Where the face of the masonry unit is convex place the straight edge on it such that the greatest distances to the face on either side of the point of contact are approximately equal. Measure them both to the nearest 0,05 mm.

## **6. Calculation and expression of results**

### **6.1. Calculation of results**

Calculate the mean length of the diagonal. In the case of concave faces calculate the mean deviation from flatness as the mean of the maximum distances of the face of the masonry unit from the straight edge on each diagonal. In the case of convex faces calculate the mean of the maximum distances of the face of the masonry unit from the straight edge for each diagonal and then calculate the mean deviation from flatness as the mean of these two results.

### **6.2. Expression of results**

Express the mean length of the diagonal to the nearest mm. Express the mean maximum deviation from flatness to the nearest 0,1 mm.

## **7. Test report**

The test report shall contain the following information:

- a) the number, title and date of issue of this Kenyan Standard;
- b) the name of the organization that carried out the sampling and the method used;
- c) the date of testing;
- d) the type, origin and designation of the masonry unit by reference to prEN 771-3, prEN771-5 or prEN771-6;
- e) the number of specimens in the sample;
- f) the date of receipt of the specimens in the testing laboratory;
- g) the length of the individual diagonals of each face and the mean length of the diagonals to the nearest millimetre;
- h) the maximum distance from the face of the masonry unit to the straight edge for each diagonal and the mean deviation to the nearest 0, 1 mm;
- i) whether the face of the masonry unit is concave or convex or any other configuration;
- j) remarks, if any.