

Product Performance Testing Methodology

Edition: 01 March 2020

Requirements and Test Methods for Concrete Kerbs

Description:

The materials, properties, requirements and test methods for unreinforced, cement bound precast concrete kerb units, channels and their complementary fittings are selected and determined in accordance with BS EN 1340:2003.

The units are used to fulfil one or more of the following: Separation, physical or visual delineation, the provision of drainage or the containment of paved areas or other surfacing.

Performance Requirements:

- Permissible Deviations:

The dimensions and deviations shall be measured according to annex C.

Length: $\pm 1\%$ to the nearest millimetre with a minimum of 4 mm, not exceeding 10 mm.

Other dimensions, except radius:

For faces: $\pm 3\%$ to the nearest millimetre with a minimum of 3 mm, not exceeding 5 mm.

For other parts: $\pm 5\%$ to the nearest millimetre with a minimum of 3 mm, not exceeding 10 mm.

The difference between any two measurements of a single dimension of a single kerb shall be ≤ 5 mm.

- Weathering Resistance – Water Absorption:

The weathering resistance is determined by tests according to annex E for water absorption.

Class 2 – The mean water absorption shall not be more than 6% by mass.

- Flexural Strength or Bending Strength:

The characteristic bending strength shall be determined by testing according to annex F.

The characteristic bending strength shall not be less than 3.5 MPa and minimum bending strength shall not be less than 2.8 MPa.

- Abrasion Resistance:

Abrasion resistance is determined by the Wide Wheel Abrasion test (annex G), or as an alternative by the Böhme test (annex H). The Wide Wheel Abrasion test is the reference test.

When tested in accordance with the Wide Wheel Abrasion Test Method:

No individual test result shall greater than 20 mm – Class 4

No individual test result shall greater than 23 mm – Class 3

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When tested in accordance with the Böhme Test Method:

No individual test result shall greater than $18000 \text{ mm}^3/5000 \text{ mm}^2$ – Class 4

No individual test result shall greater than $20000 \text{ mm}^3/5000 \text{ mm}^2$ – Class 3

Note:

This is only relevant for channels over which vehicles will run and/or people walk.

In areas subject to very heavy pedestrian and vehicular traffic Class 4 products should be used.

In areas subject to normal pedestrian and vehicle use, e.g. public pavements and roads etc., at least Class 3 products should be used.

- Slip/Skid Resistance:

If in an exceptional case a value for slip/skid resistance is required, the test method as described in annex I shall be used and the minimum slip/skid resistance value shall be declared.

This is only relevant for channels over which vehicles will run and/or people walk.

Pendulum test value of 40 to 74 indicates low potential for slip

Pendulum test value above 75 indicates extremely low potential for slip