Pre-Cast Concrete Kerbs, Channels, Edgings and Quadrants - Transverse Strength

Lab Test Reference 307
British Standard Reference
BS 7263 : 1990 Appendix B

Principal Apparatus

Compression Testing Machine - Lab Invent No. xxx
(BS1610 Part 1 - Grade A)

1. Preliminaries

1.1 The compression testing machine has a transverse unit attached which is used for determining tensile strength of concrete products. Two supporting rollers on the bottom of the unit are adjustable so that the width between them can be carried. Pre-drilled holes are used to position the rollers to the appropriate width. The central upper member of the transverse unit is spherically seated to provide a vertical tension free axial load and is positioned at the centre of the spanned specimen under test.

1.2 The area designated as the concrete laboratory will be used to carry out this test and the equipment shall be checked before the test proceeds.

1.3 Check the Calibration Certificate for the Compression Testing Machine is valid.

1.4 Check the sample number and the Test Schedule correspond and obtain a test worksheet 307.

2. Standard Test Method

2.1 The specimen to be tested is placed symmetrically on the bearers of the unit with the greater cross sectional dimension horizontal. These are to be set 750mm apart for kerbs and 250mm for edgings. A 50mm wide hardwood fillet is then bedded on the upper surface of the mid-point of the span using a thin layer of plaster of Paris which is then allowed to set before the test is carried out.

2.2 When products having profiles as figures 1b) and 1c) are to be tested a suitable hardwood wedge is inserted between the kerb and fillet.

2.3 The compression machine is set into the transverse mode by operating the lever between the console and the transverse frame. The pacer on the console is pre-set to a rate not exceeding 16.5 N/sec for each 100mm of width as tested.

2.4 The machine is allowed to apply load to the specimen after first taking up any gap between the central bearer and the specimen by means of accelerated loading.

2.5 Load is applied steadily until the specimen fails at which point the maximum load is recorded by the compression tester, or until the capacity of the machine is reached.

2.6 The individual failing load is recorded to the nearest 0.1 kN except when a specimen does not fail under the upper limit of the testing machine in which case record the failing load as "greater than ..... kN/".