

Clay Paving Block Transverse Breaking Load

Lab Test Reference 338
British Standard Reference
BS 6677: Part 1 : 1986 Appendix B

Principal Apparatus

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

1. Preliminaries
 - 1.1 This test is performed in the concrete laboratory and equipment needs to be checked as follows:-
 - 1.2 Check that the Calibration Certificate for the Compression Testing Machine is valid.
 - 1.3 Check the sample number and the Test Schedule correspond and obtain a test worksheet from the Cabinet.
2. Standard Test Method
 - 2.1 The compression testing machine has a transverse unit attached which is used for determining tensile strength of concrete products. The two supporting rollers on the bottom of the unit are adjustable so that the width between them can be varied. 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.
 - 2.2 The 10 pavers which are to be tested are first immersed in water at $20 \pm 5^{\circ}\text{C}$ for 24 hours after which all surplus water is removed.
 - 2.3 Each paver in turn is placed in the transverse unit, with the wearing surfaces uppermost, such that the bottom face rests on the two steel roller bearers. The bearers are set 175mm apart by adjusting the settings on the pre-drilled holes and ensuring the pavers are placed at right angles to the axis of the bearers and symmetrically. Check that the length of the bearers exceeds the maximum width of that part of the paver lying between the two bearers.
 - 2.4 The machine is switched on and set in transverse mode. Load is applied centrally at a uniform rate of 5 ± 0.5 kN/min through the first bearer which is lowered on to the wearing surface of the paver and placed mid way between the two bottom bearers.
 - 2.5 Load is applied until failure occurs at which time the paver cracks and breaks. The load is recorded to the nearest 0.1kN.
 - 2.6 Mean Transverse breaking load is reported as the mean of the 10 pavers tested.