

Test Preface

Test Report No. N950-22-18407

Water Penetration (Dynamic)

The following preface is intended to provide (in readily understood terms) some 'background' to this particular test, its purpose, relevance to 'real world' façade performance and an accurate interpretation of the results.

The Barracuda system will be required to resist the penetration of water (principally resulting from 'rainfall') during its service life.

We wanted to prove that the Barracuda system could adequately resist the penetration of water.

This is a test that many will be familiar with, it's one of the CWCT standard 'Sequence B' tests and is usually conducted on a recently built test panel.

Please note that the Barracuda system has also been 'Heat/Rain' and Freeze/Thaw' tested during 60 year long term durability testing (Test Report No. N950-24-18683).

The Barracuda system, like the majority of brick slip systems is a 'rainscreen'. Thin relatively porous clay brick slips and mortar joints cannot provide a perfect 'weather seal' so it is important that any brick slip system effectively drains the limited amount of water that seeps through the brick slips and the joints. The system should drain any water that seeps through the brick slips and joints down the rear face of the brick slip skin so that it can exit from the cavity via a 'flashing' or similar.

The water penetration test panel was configured so that it incorporated brick heights that represented the extremes of those allowed by BS EN 771-1. (58mm to 70mm).

In order to test brick slips that were 58mm and 70mm high, brick slips were carefully fabricated (cut and bonded), ensuring that their original top and bottom surfaces were retained.

In order to create a worse than 'worst case', brick slips 58mm high were incorporated into the test panel in greater relative theoretical quantity proportions than allowed by BS EN771-1.

Bricks, and the brick slips which are cut from them, also come in numerous shape types, bricks with large frogs, large core holes, numerous smaller core holes and of course 'solid' bricks etc. The bricks can be any clay material type, extruded, pressed or handmade.

In order to represent this range of brick shape types and brick manufacturing techniques, nine different brick types were selected and incorporated into the impact test panel.

These were;

- Brick Type 1. – Wienerberger Sandalwood Yellow Multi
- Brick Type 2. – Michelmersh Charnwood Light Victorian Red
- Brick Type 3. – Ibstock Leicester Red Stock
- Brick Type 4. – Ibstock Chesterton Multi Red Smooth
- Brick Type 5. – Blockley Windermere Grey Solid
- Brick Type 6. – Wienerberger Olde Ivory Stock
- Brick Type 7. – Wienerberger Smeed Dean London Stock
- Brick Type 8. – Ibstock Aldridge Anglian Red Multi Rustic
- Brick Type 9. – Michelmersh Haddley Brindle Wirecut

Please see test panel drawings appended to the test report for locations/distribution of the different brick types.

Testing carried out in accordance with the CWCT Standard Test Methods for Building Envelopes: 2005

Please read the test report thoroughly, it's always important to read beyond just the 'Summary and Classification of Results'. Some manufacturers might prefer that you didn't, we would always encourage you to, because we are entirely confident that a detailed examination of the test results and accompanying photographs reveals a depth and quality of performance that comfortably exceeds the classification and is genuinely market leading.

Watertightness – Dynamic \pm 600 pascals = Pass

One minute into the test, slow dripping was observed down the back of the brick slips/rails. During the test period the amount of water leakage remained constant and was confined to the back face of the brick slips and rails. The water drained out at the base of the sample.