



0013

## PHYSICAL TESTING ANALYSIS REPORT

**Description:** Determination of Bond Strength

**Test Method:** BSEN 771-1: 2011 Clause 5.3.13

**Lucideon Reference:** (174717)-35110

**Client:** Norfolk Antique & Reclamation Centre Ltd  
Woolseys Farm  
Salhouse Road  
Panxworth  
NR13 6JH

**For the Attention of:** Mr. Frank Sykes

**Date Logged:** 12-Oct-2017

**Date of Tests:** 25-Oct-2017 to 25-Oct-2017

**Report Date:** 25-Oct-2017

**Purchase Order No.:** BACS

Please find attached the results for the sample(s) recently submitted for analysis.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

**Miss Zoe Kinally**  
**Manager**



## BOND STRENGTH

In accordance with clause 5.3.13 of EN 771-1:2003, Bond Strength can be declared or measured, as highlighted below:

### 5.3.13 Shear Bond Strength

#### 5.3.13.1 General

For clay masonry units intended to be used in elements subjected to structural requirements the bond strength of the unit in combination with mortar shall be declared in terms of the characteristic initial shear strength in accordance with EN 1052-3. The declaration may be made either on the basis of fixed values as in 5.3.13.2 below or tests as in 5.3.13.3 below. The manufacturer shall declare whether the value of bond strength has been obtained from the fixed values or from test.

NOTE: In most cases it is expected that the use of fixed values will be sufficient.

#### 5.3.13.2 Declaration Based on Fixed Values

When no declaration is made in under 5.3.13.3 the characteristic initial shear strength of the unit in combination with mortar may be declared by reference to EN 998-2: 2010, Annex C.

#### 5.3.13.3 Declaration Based on Tests

The characteristic initial shear strength of the unit in combination with one or more specific type of mortar specified in accordance with EN 998-2 may be declared based on tests on clay masonry units sampled from a consignment in accordance with Annex A and tested in accordance with EN 1052-3. The characteristic initial shear strength shall not be less than the declared value.

NOTE: Bond strength depends on the mortar, the masonry unit and the workmanship.

As part of the National Annex NA in BS EN 771-1:2011 the UK has adopted the declaration based on fixed values tabulated in EN 998-2:2003 Annex C which are:

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### Annex C (normative)

#### Characteristic initial shear strength of designed masonry mortars

The characteristic initial shear strength of designed masonry mortars in combination with masonry units to EN 771 shall be as follows:

- 0,15 N/mm<sup>2</sup> for General purpose and lightweight mortar;
- 0,3 N/mm<sup>2</sup> for Thin layer mortar.

**END OF TEST REPORT**