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# System Type Approval Certificate

Certificate Number jhai 14021

This is to certify that the

## **Durabase**

Floor and dwarf wall system provided by

Durabase Ltd  
Wye Valley Engineering Ltd  
Durabase House  
Netherwood Road  
Rotherwas Industrial Estate  
Hereford HR2 6JU

Meets the technical requirements of the elements of the Building Regulations 2010  
(as amended) specified in the attached schedule

**Date of Issue**

01/10/2023

**Date of expiration**

30/09/2024

Signed on behalf of jhai Ltd



**Andrew Crooks**  
Executive Director



## System Type Approval Certificate

Certificate Number *jhai* 14021

For

**Durabse**

Floor and dwarf wall systems

Provided by

Durabase Ltd

Wye Valley Engineering Ltd

Durabase House

Netherwood Road

Rotherwas Industrial Estate

Hereford HR2 6JU

## System Type Approval Schedules

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## 1. Summary

- **Durabase** is a floor and dwarf wall system for use as a base for Orangeries and single storey home extensions.
- The purpose of this assessment is to determine that the system complies with the functional requirements of the relevant sections of the Building Regulations 2010 (as amended). Note that this assessment is in respect of the bespoke steel base and modular wall system only and does not consider whether the overall extension is exempt from, or compliant with, the provisions of the regulations. Individual assessment of the ground conditions and base construction are excluded and will be assessed on a site specific basis using industry standard codes
- In support of this process Wye Valley Engineering Ltd. have provided the following documentation for assessment and review
  - **Structural engineer's calculations/design (Scott White and Hookins Structural Engineers)**
  - **Floor U Value calculation 0.18 (Recticel April 2011)**
  - **Wall U value calculation 0.18 (Celotex October 2022)**
  - **British Board of Agreement Certificate No. 08/4525**
  - **Durabase assembly instructions (dwarf wall models)**

## Building Regulations 2010 Technical Requirements

<p><b>Requirement A1</b></p> <p>Comment</p>	<p><b>Loading</b></p> <p>The system meets the requirement to safely sustain the relevant loads applied to it. The installer must however satisfy themselves as to the adequacy of the existing structure. Individual assessment of the ground conditions and base construction are excluded and will be assessed on a site specific basis using industry standard codes</p>
<p><b>Requirement B4(2)</b></p> <p>Comment</p>	<p><b>External fire spread</b></p> <p>The dwarf wall should be considered as an unprotected area and the "fire wall" detail should be used where required</p>
<p><b>Requirement C2</b></p> <p>Comment</p>	<p><b>Resistance to moisture</b></p> <p>The system meets the requirement to resist precipitation, surface and interstitial condensation.</p> <p>To provide adequate air flow beneath the floor a minimum 150mm air gap between the ground and the underside of the base must be ensured. The ground should be covered so as to resist moisture and prevent plant growth.</p> <p>Air vents must be fitted to the fascia skirting board on both ends of the base to ensure adequate cross ventilation under the floor. The openings should be not less than either 1500mm<sup>2</sup>/m run of external wall or 500mm<sup>2</sup>/m<sup>2</sup> of floor area, whichever gives the greater opening area.</p>
<p><b>Requirement L1</b></p> <p>Comment</p>	<p><b>Conservation of fuel and power</b></p> <p>The system meets the requirement to limit heat loss through the floor and dwarf wall construction.</p>



## 2. Product Description

- **Durabase** by Wye Valley Engineering Ltd. Is a bespoke system comprising of a rigid steel base frame with screw adjustment levelling feet which stand on concrete pads and provide a base for orangeries and extensions
- The base frame supports a galvanized steel modular dwarf wall system with a selection of brick slip finishes
- These systems can be designed as a bespoke structure to suit the existing dwelling
- The Durabase products comprise of the following
  - Full height base system
  - Modular wall base system
  - DurabasePlus Modular wall/full height base system
- When using the DurabasePlus system the specially designed steel base and flooring insulation can achieve a U-value of 0.18 W/m<sup>2</sup>K. The modular walls, when insulated and finished off with foil-backed plaster board can achieve a U-value of 0.18 W/m<sup>2</sup>K

### 3 Approval Statement

3.1 Upon review of the details submitted the **Durabase System is hereby approved for compliance** with the referenced functional requirements as cited in Schedule 1 of the Building Regulations 2010 for residential use (purpose groups 1 (a)(b)(c) of Approved Document B) where used as a domestic extension

3.2 This certification is issued to and is approved for use by

**Durabase**

Wye Valley Engineering Ltd  
Durabase House  
Netherwood Road  
Rotherwas Industrial Estate  
Hereford HR2 6JU

When submitted as a valid building regulation application to **JHAI Ltd.**

3.3 The technical standards referred to for the purpose of this assessment are as follows:

**Durabase bespoke steel base system**  
**Durabase modular wall system**

3.4 **IDENTIFICATION AND USE OF THE JHAI LOGOS**

Correct identification of approved Building Systems is desirable in order that purchasers and funding providers understand the status of products presented to them.

Recipients are encouraged to make use of the **JHAI System Approval Logo** on marketing and technical documentation



## 4 Conditions of Use

- 4.1 The **Durabase** System as assessed by this process is suitable for use as an extension to a single or multi occupancy residential buildings. The details and information contained within this approval may be suitable for buildings in other purpose groups where appropriate and upon further consideration and assessment by JHAI
- 4.2 The approval covers the elements of the superstructure only as contained in the technical standards referred to in item 3.3 above. Individual assessment of the ground conditions and base construction are excluded and will be assessed on a site specific basis using industry standard codes.
- 4.3 Indicative guidance relating to the construction of traditional elements of the work is contained in Section 5
- 4.3 Any element outside the scope of this approval shall be assessed for each use on site and any variations from either **Durabase** or **Building Regulations** (and associated) standards shall be assessed by a competent and qualified structural engineer experienced with the **Durabase** systems
- 4.4 This system approval relates to the **Durabase** system as described in the technical guides referenced in 3.3 above. It is subject to the same exclusions contained therein and all other components and working practices are subject to the requirements of the Building Regulations, manufacturers installation guides and associated standards
- 4.5 An assessment of the QA process between **Durabase** and the installers will be carried out as part of the inspection programme to demonstrate that the components are being used in accordance with **Durabase** recommendations. This is in addition to the site visits required to demonstrate compliance with the Building Regulations and associated standards
- 4.6 No cutting or alteration of the structural members on site are permitted without obtaining written approval from **Durabase**
- 4.7 The component systems referenced are constructed/manufactured in factory conditions and as such is designed to be erected within a short period of time. Construction should be continuous and preferably scheduled during periods of sustained dry weather through to the provision of the permanent roof covering as soon as reasonably possible.
- 4.8 Each extension will need to be appraised individually for compliance with the Building Regulations 2010 (as amended) by JHAI based upon the guidance contained in the current Approved Documents

- 4.9 An assessment as to whether the external cladding achieves a ClassB-s3, d2 will be carried out on an individual basis based upon the site specific cladding/infill panel selection
- 4.10 The external cladding and glazed area will be assessed for each individual project based upon the specified materials (unprotected areas) and boundary locations as referenced in Section 5 of these schedules
- 4.11 The system approval is limited to single storey buildings and as such fire resistance test standards of Part B of the Building Regulations and BS 476: Parts 20, 21 and 22 (as appropriate) will not be applicable.
- 4.12 **Where the thermal separation is removed between the host structure and the Durabase structure, the glazed area of the extension should ordinarily be limited to 25% of the floor area + the area of any existing windows/doors enclosed by the extension.**
- 4.13 **Where the requirements of 4.12 is exceeded SAP calculations will be required. SAP calculations look at the whole building as extended and will require a more detailed survey to be undertaken**
- 4.14 This system approval certificate is valid for a period **of one year** from the date of issue. This limitation is placed in order that the impact of new and changing relevant regulation can be assessed prior to re-issue
- 4.15 Note that this is a system approval of the **Durabase** products only and additional site specific information may be requested that is not encompassed by the detail contained in the approval.

Signed on behalf of jhai Ltd.



**Andrew Crooks**

Director of Technical Services & Learning