

# HAPAS

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HAPAS Certificate  
**13/H203**  
Product Sheet 1

### ALLAN BLOCK RETAINING WALL SYSTEM

### AB MODULAR STACKABLE CONCRETE BLOCK WALL SYSTEM FOR REINFORCED SOIL RETAINING WALLS AND BRIDGE ABUTMENTS

This HAPAS Certificate Product Sheet<sup>(1)</sup> is issued by the British Board of Agrément (BBA), supported by the Highways Agency (HA) (acting on behalf of the Overseeing Organisations of the Department for Transport; Transport Scotland; the Welsh Assembly Government and the Department for Regional Development, Northern Ireland), the Association of Directors of Environment, Economy, Planning and Transport (ADEPT), the Local Government Technical Advisers' Group and industry bodies. HAPAS Certificate Product Sheets are normally each subject to a review every five years.  
(1) Hereinafter referred to as 'Certificate'.

This Certificate relates to the AB Modular Stackable Concrete Block Wall System for Reinforced Soil Retaining Walls and Bridge Abutments for use up to a maximum height of 10 metres. The system comprises concrete block facing units, Fortrac MP and Fortrac T geogrids and compacted fill.

#### CERTIFICATION INCLUDES:

- factors relating to compliance with HAPAS requirements
- factors relating to compliance with Regulations where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal five-yearly review.



#### KEY FACTORS ASSESSED

**Mechanical properties** — the method of connection between the geogrids and concrete block facing units has been assessed and long-term connection strength values determined for various wall heights and concrete block/geogrid combinations (see Table 6). The interface shear capacity between adjacent concrete block facing units in between layers of geogrid reinforcement has been assessed and is satisfactory (see section 7.8).

**Performance of geogrids** — the short- and long-term tensile strength of the geogrids, resistance to installation damage, weathering and environmental effects and soil/geogrid interaction have been assessed<sup>(1)</sup> (See section 7).

**Durability** — when designed and installed in accordance with the provisions of this Certificate, the system will have adequate durability for its intended use as a retaining wall or bridge abutment (see section 9).

(1) Data and reduction factors for use in design are given in BBA Certificate 13/H197.

The BBA has awarded this Certificate to the company named above for the system described herein. This system has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of First issue: 30 July 2013

*Brian Chamberlain*

Brian Chamberlain  
Head of Approvals — Engineering

*Claire*

Claire Curtis-Thomas  
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The BBA is a UKAS accredited certification body — Number 113. The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at [www.bbacerfs.co.uk](http://www.bbacerfs.co.uk)

Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

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