



## Operations & Maintenance Manual

Project address	6252 The Material Store
Customer	Adrian Culling of Blackdown Green Roofs
Date	04/04/2017
Product brand	Harmer Roof Drainage
Product description	Modulock Raised Deck Supports



# 1 Contents

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<b>1</b>	<b>Contents</b> .....	<b>1</b>
<b>2</b>	<b>NBS Specification</b> .....	<b>2</b>
<b>3</b>	<b>Installation &amp; Maintenance</b> .....	<b>3</b>
<b>4</b>	<b>ISO 9001</b> .....	<b>4</b>
<b>5</b>	<b>Technical Data Sheet</b> .....	<b>5</b>
	Typical example: .....	5
<b>6</b>	<b>Sustainability</b> .....	<b>7</b>
<b>7</b>	<b>Product Details</b> .....	<b>8</b>



## 2 NBS Specification

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### H41 REINFORCED BITUMEN MEMBRANE ROOF COVERINGS

#### GENERAL

110 Reinforced Bitumen Membrane roof coverings Alumasc Waterproofing Membrane Systems.

#### SYSTEM PERFORMANCE

##### 210 GENERAL

- Secure, free draining and watertight

#### PRODUCTS

##### 467 SUPPORT SYSTEMS FOR PRECAST CONCRETE PAVING SLABS

Manufacturer: AWMS

Station Road  
Burton Latimer  
Kettering  
Northamptonshire  
NN15 5JP

Tel: 01536 383810

Email: [info@alumasc-exteriors.co.uk](mailto:info@alumasc-exteriors.co.uk)

Type: Adjustable deck supports

Size: MB1: 32-50mm high/MB2: 50-75mm high/MB3:70-120mm high/  
MB4: 120-170mm high/MB5: 170-215mm high

Product Code: MB1-MB5

Reference: Harmer Deck Modulock

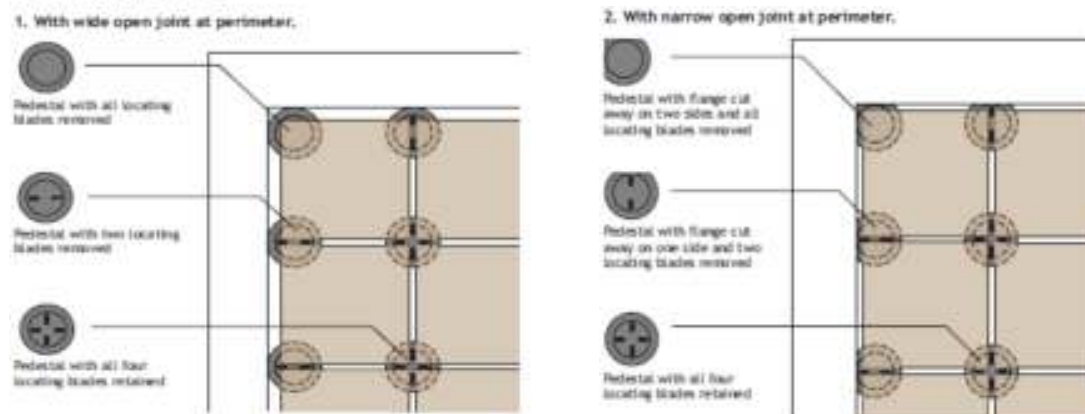
Accessories: Adjustable key

### 3 Installation & Maintenance

#### Sequence:

1. Check condition of sub-base, waterproofing and drainage points. Rectify any defects and clear drainage outlets as a preliminary measure.
2. Set out pattern of pedestal supports, selected to suit new deck height and paving modules.
3. Use supporting heads with linear blade configurations at edges of deck and at any intermediate surface interruptions.
4. Adjust pedestal screwjacks to the approximate height required, checking for level and alignment.
5. Finalize the layout of the pedestals. For convenience, use a lightweight template for checking positions and to avoid undue lifting of heavy slabs.
6. Proceed to lay the paving slabs, ensuring each slab corner is firmly seated on the pedestal had and butted up to the locating blades.
7. Final adjustment to level can be made by using the adjustment key.

#### Alternative Edge Details



#### Routine Care and Maintenance:

Installer and/or Architect has a duty to instruct the deck owner about performing routine maintenance. Check for rocking pavers and adjust or shim immediately. Substances can settle and pedestals may have to be readjusted. Failure to do so can cause tripping hazard. Periodically check spacer tabs and immediately replace broken tabs to limit deck movement. Make sure the edge restraint stays intact and structurally sound.

The simplicity of the design allows for easy removal of slabs for cleaning maintenance of the roof covering membrane. Please refer to the roof covering membrane manufacturer for their routine cleaning maintenance details.

## 4 ISO 9001



# Certificate of Registration

**Burnbrae Drive,  
Linwood Industrial Estate,  
Linwood,  
Renfrewshire,  
PA3 3BW**

**Alumasc Exterior Building Products Ltd.**  
White House Works  
Bold Road  
Sutton  
St Helens, Merseyside  
WA9 4JG

**Station Road,  
Burton Latimer,  
Kettering,  
Northamptonshire  
NN15 5JP**

## BS EN ISO 9001:2008

Centre for Assessment has assessed Alumasc Exterior Building Products Ltd and confirms that the requirements for registration have been met in the following scope:

**Design of roofing systems; Manufacture and Supply of exterior rendering and paint;  
Manufacture and supply of rain water and drainage systems**

**Organisation:** Alumasc Exterior Building Products Ltd

**Certificate:** 02/1832

**Signed:**   
(on behalf of Centre for Assessment Ltd)

**Initial Registration Date:** 30<sup>th</sup> April 2003

**Issue Date:** 14<sup>th</sup> April 2015

**Expiry Date:** 30<sup>th</sup> April 2018



Revision 0      Centre for Assessment Ltd, 35 Warren Bruce Court, Warren Bruce Road, Trafford Park, Manchester, M17 1LB

## 5 Technical Data Sheet

Typical example:

### TECHNICAL DATA SHEET

**SB 4**  
CODE  
**E015470120**

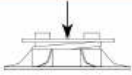
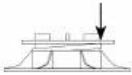
REV 00  
27.06.2013

**ADJUSTABLE PAVING SUPPORT BASIC**

ITEM SPECIFICATION	
	<p>"Basic" type pedestal for raised floors with adjustable height from 70mm to 120mm. Pedestals are composed by a cylindrical base element of 205 mm diameter for resting on the laying surface and by an intermediate screw with head element with h.12 mm in 4 mm thickness. Base is provided of holes for water drainage and of 4 precut lines to facilitate any cutting of the base in case of need.</p>
PRODUCT RANGE	PEDESTAL
PRODUCT NAME	SB 4
CHARACTERISTICS	regulation in highness
RAW MATERIAL	Polypropylene
ENVIRONMENTAL IMPACT	recyclable material - non dangerous
APPLICATIONS SURFACES	On any waterproofing membrane, or any insulating panel or any compact and solid surface
APPLICATIONS AREA	Usable with any prefabricated self sustaining element for exterior flooring

CHARACTERISTICS	UNIT	VALUE	TOLERANCE
BASE DIAMETER	mm	195	+/- mm 1,0
BASE THICKNESS	mm	3	+/- mm 0,2
HEAD DIAMETER	mm	110	+/- mm 0,8
LAYING SURFACE OF THE BASE	cmq	298	+/- cmq 5
MINIMUM HEIGHTNESS	mm	70	+/- mm 1,0
MAXIMUM HEIGHTNESS	mm	120	+/- mm 1,5
TABS THICKNESS	mm	4	+/- mm 0,2
TABS HEIGHTNESS	mm	12	+/- mm 0,2
WEIGHT	kg	0,250	+/- 5 %

TECHNICAL PROPERTIES	UNIT	VALUE
CENTRAL COMPRESSION LOADING LIMIT RESISTANCE* <small>(calculated at medium heightness, between minimum and maximum extension)</small>		KN 19,21
ECCENTRIC COMPRESSION LOADING LIMIT RESISTANCE* <small>(calculated at medium heightness, between minimum and maximum extension)</small>		KN 11,38
SLOPE CORRECTION	%	0 - 5
SHORE	Shore d	70 (+/- 3)

\*Tests made by Civil and Environmental Department of University of Padova. 1 KN = 98,6 Kg

PHYSICAL PROPERTIES	METHOD	UNIT	VALUE
FIRE REACTION*	UNI EN 13501-1:2009	class	E
LOW TEMPERATURES REACTION			-40°

\*Tests made by Giordano S.p.A. Institute of Bellaria-Igea Marina (RN)-Italy

PACKAGING AND STORAGE	
PIECES PER BOX	25
PIECES PER PALLET	30
BOX DIMENSION	cm 40x40x42
BOX WEIGHT	kg 7
PALLET DIMENSION	cm 80 x 120

The packing of the supports is made of boxes. The final pallets are wrapped with a polyethylene film. We recommend to store indoor, pallets to be protected from the rain.

LAYING OF THE PRODUCT	
	The product is simply laid on the laying area, with no need of any glue or fixing

The above data are relevant to current production and may be changed or updated by Eterni Ivica at any time without notice.  
Given the many possible uses and the possible interference of external elements, we do not assume responsibility for the results. The buyer is required to establish under their own responsibility the suitability of the product for the intended use. This document is property of Eterni Ivica. All rights reserved.

## 6 Sustainability

In addition to complying with environmental legislation, Alumasc is committed to developing its own measures to limit the adverse effects of its activities on the environment. To this end, Alumasc operates an environmental policy that fully integrates all aspects of company activities.



### Quality

#### ISO 9001: 2008

Alumasc operates a quality management system which is independently audited to ISO 9001: 2008. The ISO 9001 framework governs the management of many aspects of Alumasc support services, manufacturing and transport operations. Alumasc extends quality management to its network of approved installers for single source accountability and peace of mind.



### Sustainability

Alumasc actively pursues sustainability in the full range of products it offers and, with its partners and its suppliers, is committed to putting consideration for the built and wider environment at the core of all aspects of current business and future development.

#### ISO 14001: 2004

Alumasc's manufacturing sites at St Helens, Merseyside and at Burton Latimer, Northamptonshire are audited to the ISO 14001:2004 Environmental Management Standard. Alumasc is committed to achieving improvements across all of its operating sites, not only as a good neighbour to the surroundings of manufacturing plants, but in the responsible sourcing of raw materials and monitoring of the impact on the environment as a whole.



#### BREEAM Standards

BREEAM points, as a framework for analysis and scoring, allow easy comparison of the relative merits of different construction types and also comparisons between different construction product groups. The BREEAM points system promotes the use of materials with a proven sustainable message and allows designers to differentiate between products with true ecological credentials and those not achieving the benchmark.

Indicative ratings for building materials given in the BRE Green Guide to Specification also allows designers to choose those products or construction methods that will be most beneficial in contributing to a high BREEAM points score.

Aluminium rainwater goods and fascia soffit systems are part of the range of high scoring Alumasc solutions. Promotion of these responsibly sourced materials brings clarity to the specification process thus achieving the desired effect of minimising the environmental impact of the construction process.

### Testing and Certification

#### Applicable Standards

BS EN 12056-3  
Gravity drainage systems inside buildings, Part 3 Roof drainage layout and calculation.

BS EN 8530 (Formerly BS 2997)  
Specification for traditional-style half round, beaded half round, victorian ogee and moulded aluminium rainwater systems.

BS EN 755  
Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles.

BS EN 1706:2010  
Aluminium and aluminium alloys - Castings - Chemical composition and mechanical properties.

BS EN 1559  
Founding - Technical conditions of delivery.

BS EN 1462:2004  
Brackets for eaves gutters - Requirements and testing.

BS EN 12206-1:2004  
Paints and varnishes - Coating of aluminium and aluminium alloys for architectural purposes.

BS 460: 2002  
Cast iron rainwater goods. Specification.

BS 437: 2008  
Specification for cast iron drain pipes, fittings and their joints for socketed and socketless systems.

British Board of Agrément  
Certificate No. B6/1671  
Alumasc Rainwater Systems.

RIBA Assessed CPD Seminar  
Rainwater Disposal from Pitched Roofs.





## 7 Product Details

The Modulock Pedestal and Modulock Uni-Ring/Uni-Plus raised deck supports are designed for use in terraces, walkways, balconies and ballasted flat roof constructions. They provide unique solutions for drainage and accessibility issues.

### Modulock Pedestal

- Wide range of height adjustment from 28mm - 550mm
- Fine adjustment for both height and level are possible
- There are 2 different types of head

#### Modulock Pedestal Self-Levelling Head

- The Modulock Pedestal Self-Levelling Head compensates for gradients up to 5°
- Made of polypropylene and rubber to provide an anti-noise and anti-slip bedding surface

#### Modulock Pedestal Timber Deck Head

- This head is specifically designed for use with timber decking construction and is also self-levelling



### Modulock Uni-Ring & Uni-Plus

- Uni-Ring gives a fixed height of 16mm.
- Shims offer fine adjustment in increments of 3mm
- Uni-Plus provides adjustment of 25-40mm
- Both are economical paving supports, used where self-levelling adjustment is not required

### Self-Locating

- Locating blades on Modulock Pedestal Self-Levelling Head assist positioning of slabs and maintaining open joints when required
- Locating blades can be removed

### Compatibility

- Harmer Modulock Pedestal and Uni-Ring product ranges are fully compatible with the Modulock Channel Drain ranges

### Robust Construction

- Resists temperatures from -40° to +120°C
- UV stable and resistant to acids
- 20-year life expectancy

### Versatile Installation

- Modulock Pedestal and Modulock Uni-Ring are quick and easy to install, and provide fast, efficient drainage through the open joints of the slabs to the concealed drainage way below
- A stable sub-base and an adequate means of surface water drainage are virtually the only prerequisites for the use of the Modulock Pedestal system.
- Irregular, stepped, uneven or sloping sub-bases can usually be easily surmounted by the system resulting in a new level raised floor

