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**Monarflex  
Anderson**  
A member of the Icopal group



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## Xtra-Load Damp Proof Courses

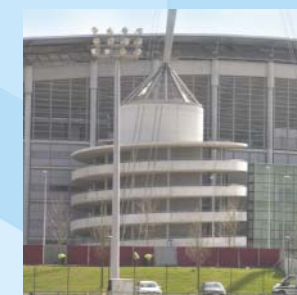
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Complete Waterproofing System Solutions





# Xtra-Load Damp Proof Courses

## Overview

“A DPC in a building is intended to provide a barrier to the passage of water from the exterior of the building to the interior, from the ground to the structure or from one part of the structure to another.”

(BS 5628-3:2001, Page 57)

## Pioneers in Damp Proof Courses

Monarflex Anderson is a part of the Icopal Group, one of the largest manufacturers of waterproofing products in the world and has long been a pioneer in the field of Damp Proof Courses.

Modern construction trends have placed greater emphasis on the need for higher quality, better performance and greater durability to accommodate the demands of contemporary building design.

Monarflex Anderson is much more than just a provider of building waterproofing products. Our role is to use our specialist expertise and resources to help solve your problems, providing complete solutions to satisfy your design and cost requirements while complying with all the relevant Codes of Practice.

Our starting point is to work with you, helping to develop your design criteria taking into account such issues as the nature of the building and the mix of materials used in its construction, etc.

Only then do we recommend solutions based on our comprehensive Xtra-Load range of advanced DPC products. Whatever your design criteria you can rest assured that Xtra-Load will perform to the very highest standards.

## National Structural Waterproofing Association

“Helping gain confidence in today’s construction industry”

Monarflex Anderson is proud to be a founder member of NSWA, a non-profit making organisation set up with the aim of raising standards in design, workmanship and materials for the structural waterproofing market.

NSWA provides a forum for all interested parties; manufacturers, specifiers, management contractors and trade operatives to evaluate and propose improvements thus providing the building owner with long term peace of mind.

Pioneered by Monarflex Anderson and Lafarge (Blue Circle Cement Products), NSWA plays a valuable role in investigating current workplace practice, choice of materials, training standards etc, and operates a register of approved trade members committed to delivering improved standards.

The NSWA network of approved contractors are specially trained to high standards in the installation of NSWA products. For more information on installation please refer to page 11.

## Benefits

### of the Xtra-Load Range

- **High tensile strength, tear strength and puncture resistance**  
 to maintain waterproofing integrity during and after construction
- **Flexibility at low temperatures**  
 for ease and speed of handling and detailing
- **All products have either BBA or BS6398 approval**  
 giving you the reassurance of guaranteed compliance
- **Superior mortar adhesion**  
 maintaining structural integrity
- **Quick and easy installation**  
 saving time and cost on site
- **Exceptional performance under load**  
 whether the load is high under multiple storeys, or light under copings
- **Products accept complex geometry**  
 allowing the most complicated details to be accommodated without compromising waterproofing
- **Long term durability**  
 giving assured waterproofing performance throughout the life of the building



## Complete Solutions

### based on Your Individual Needs

We can help you develop precise DPC design criteria by covering the following issues:

- What type of building are you designing?
- Will your DPC specification satisfy BS 5628 with reference to building movement, stability & longevity?
- What mix of construction materials are you proposing?
- Where is the building located and how exposed is it?
- How many storeys is the building?
- Are you proposing complex or unique construction practices?
- Where is the DPC located?

When your design criteria are established, use the design solution guide on page 6 to select the correct product to suit the specific demands of your project.



Xtra-Load Engerseal DPC was specified at the Commonwealth Games Stadium, Manchester for its durability and long term reliability.



Founder Member Organisations



## Xtra-Load Product Range

### Xtra-Load Engerseal

Surface Finish:	Smooth Black Surface both sides
Roll Length:	20m
Roll Widths:	100 - 1000mm
Material thickness:	1.2mm
Certification / Classification:	BBA 96/3271
Low Temperature Flexibility:	Excellent
Tensile Strength (BS 2782:320A)	Long = 12.9 Nmm <sup>2</sup> Trans = 11.2 Nmm <sup>2</sup>
Water Vapour Permeability (BS 3177)	0.28 gm <sup>2</sup> -day-1
Performance Under Load:	Very Good
Associated Ancillary Products:	Xtra-Load DPC Jointing Tape Xtra-Load Joint Support System Xtra-Load DPC Fixing Strip Xtra-Seal Quick Drying Primer Pre-formed Cavity Trays



**Composition:**  
The latest development in polymeric DPC technology, comprising a blend of elastomers and polymers and supplemented by a wide range of pre-formed cavity trays and ancillaries.



**Composition:**  
A Polymer modified bitumen membrane with a polyester carrier, supplemented by a wide range of pre-formed cavity trays and ancillaries.



**Composition:**  
A very robust, pliable DPC with high bitumen content on a hessian base, supplemented by a wide range of Pre-formed Cavity trays.



### Xtra-Load Nubit

Surface Finish:	Fine Silica Sand both sides
Roll Length:	8m
Roll Widths:	100 - 1000mm
Material thickness:	2 - 3mm
Certification / Classification:	Complies with BS6398, Type A
Low Temperature Flexibility:	Good
Tensile Strength	MD 0.881 N CD 0.454 N
Performance Under Load:	Very Good
Associated Ancillary Products:	Xtra-Load Joint Support System Xtra-Seal Quick Drying Primer Pre-formed Cavity Trays



### Xtra-Load Elite

Surface Finish:	Fine Silica Sand both sides
Roll Length:	20m
Roll Widths:	100 - 1000mm
Material thickness:	1.4mm
Certification / Classification:	BBA 96/3222
Low Temperature Flexibility:	Very Good
Tensile Strength (at Break)	700 (N/50mm)
Performance Under Load:	Good
Associated Ancillary Products:	Xtra-Load DPC Jointing Tape Xtra-Load Joint Support System Xtra-Load DPC Fixing Strip Xtra-Seal Quick Drying Primer Pre-formed Cavity Trays



### Xtra-Load Ledumite

Surface Finish:	Fine Silica Sand both sides
Roll Length:	8m
Roll Widths:	100 - 1000mm
Material thickness:	3mm
Certification / Classification:	Exceeds BS6398, Type D
Low Temperature Flexibility:	Good
Longevity (BS 5628-3:2001, Table 3)	Recommended
Use when risk of building movement exists: (BS 5628-3:2001, Table 3)	YES- Exceeds Type D BS 6398
Performance Under Load:	Excellent
Associated Ancillary Products:	Xtra-Load Joint Support System Xtra-Seal Quick Drying Primer Pre-formed Cavity Trays



**Composition:**  
A heavy duty bitumen DPC with a continuous core of sheet lead and fine sand finish, supplemented by a range of pre-formed cavity trays.



### Xtra-Load Ledkore

Surface Finish:	Coarse Sand Both sides
Roll Length:	8m
Roll Widths:	100 - 1000mm
Material thickness:	3mm
Certification / Classification:	Exceeds BS6398, Type E
Low Temperature Flexibility:	Good
Longevity (BS 5628-3:2001, Table 3)	Recommended
Use when risk of building movement exists: (BS 5628-3:2001)	YES- Exceeds Type E BS 6398
Performance Under Load:	Excellent
Associated Ancillary Products:	None



**Composition:**  
Heavy Duty Bitumen DPC with a core of seamless lead sheet and coarse sand finish.



## Design Solution Guide

The following chart will help you select products from our range to suit the specific demands of any project. If you would like further information please don't hesitate to contact our technical team.

### HORIZONTAL DAMP PROOF COURSES: Ground Level DPC's

DESIGN CONSIDERATION	XTRA-LOAD ENGERSEAL	XTRA-LOAD ELITE	XTRA-LOAD NUBIT	XTRA-LOAD LEDUMITE	XTRA-LOAD LEDKORE
Residential	Excellent	Excellent	Very Good	Good	Good
Commercial/ Industrial	Very Good	Good	Very Good	Excellent	Excellent
No. of Storeys	> 10	< 10	< 10	> 10	> 10
Stepped DPC	Yes	Yes	Yes	Yes	No
Laps (BS 5628-3: 2001, Table 3)	Lapped	Lapped	Lapped	Lapped	Lapped
Mortar Adhesion	Good	Very Good	Very Good	Very Good	Excellent

### COPINGS

Mortar Adhesion	Not Recommended	Not Recommended	Good	Good	Excellent
Laps (BS 5628-3: 2001, Table 3)	Lapped & Sealed	Lapped & Sealed	Lapped & Sealed	Lapped & Sealed	Lapped & Sealed

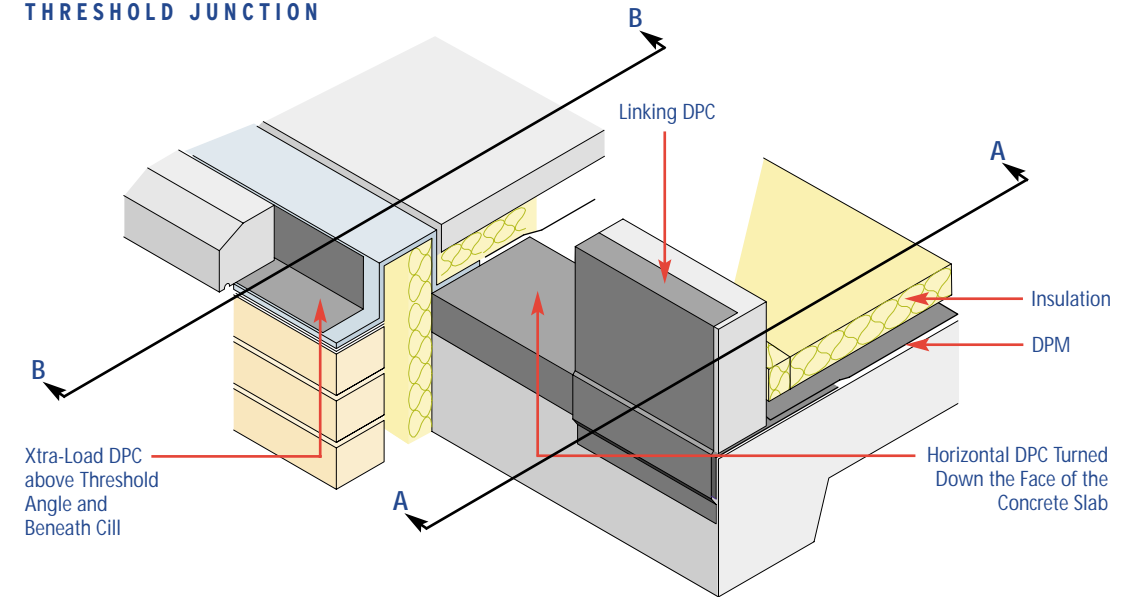
### CAVITY TRAYS: Ground Level Trays, Lintels, Parapets etc

Steel Structures	Very Good	Good	Excellent	Excellent	No
Masonry Structures	Very Good	Very Good	Very Good	Excellent	No
Stone Structures	Excellent	Excellent	Very Good	Very Good	No
Support Joints	Yes	Yes	Yes	Yes	No
Pre-Formed Cloaks	Yes	Yes	Yes	Yes	No
Surface Fixing	Mechanical	Mechanical	Torched	Torched	No
Lap Joints	Taped	Taped	Torched	Torched	Not Applicable
Suitable for Complex Shapes	Excellent	Very Good	Very Good	Very Good	No
Use of Naked Flame	No	No	Yes	Yes	No
Risk of Building Movement (BS 5628-3: 2001 Table 3)	Not Recommended	Not Recommended	Not Recommended	Recommended	Recommended
Requires Ancillary Products	Yes	Yes	Yes	Yes	No

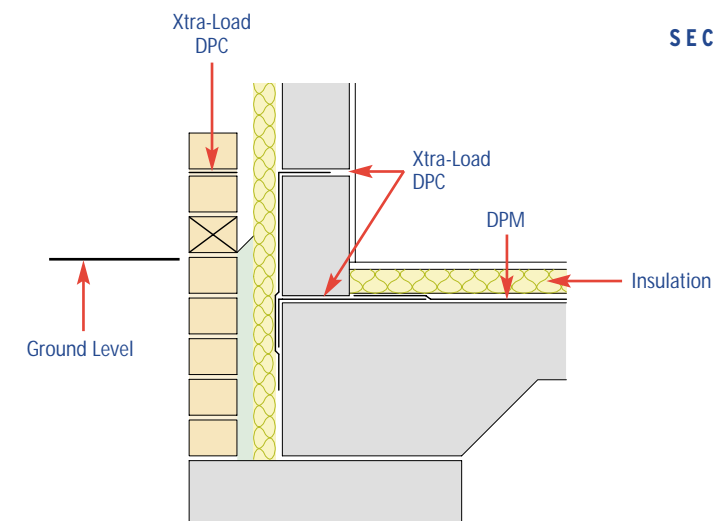
## Typical Detailing

No matter how complex the detailing in your project we can give you the specialist design support you need. In addition to the typical details shown on these and the following two pages we will be pleased to help you solve any other detailing issues, supplying CAD drawings as appropriate.

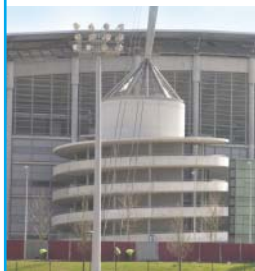
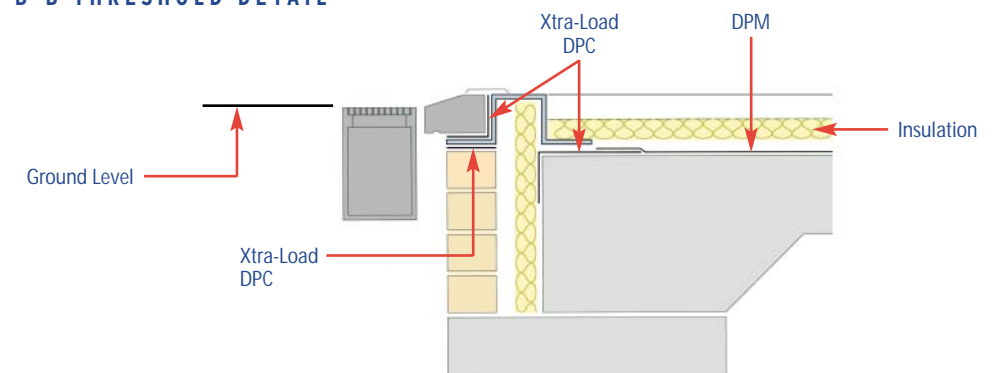
### Flush Access THRESHOLD JUNCTION



SECTION A-A WALL DETAIL

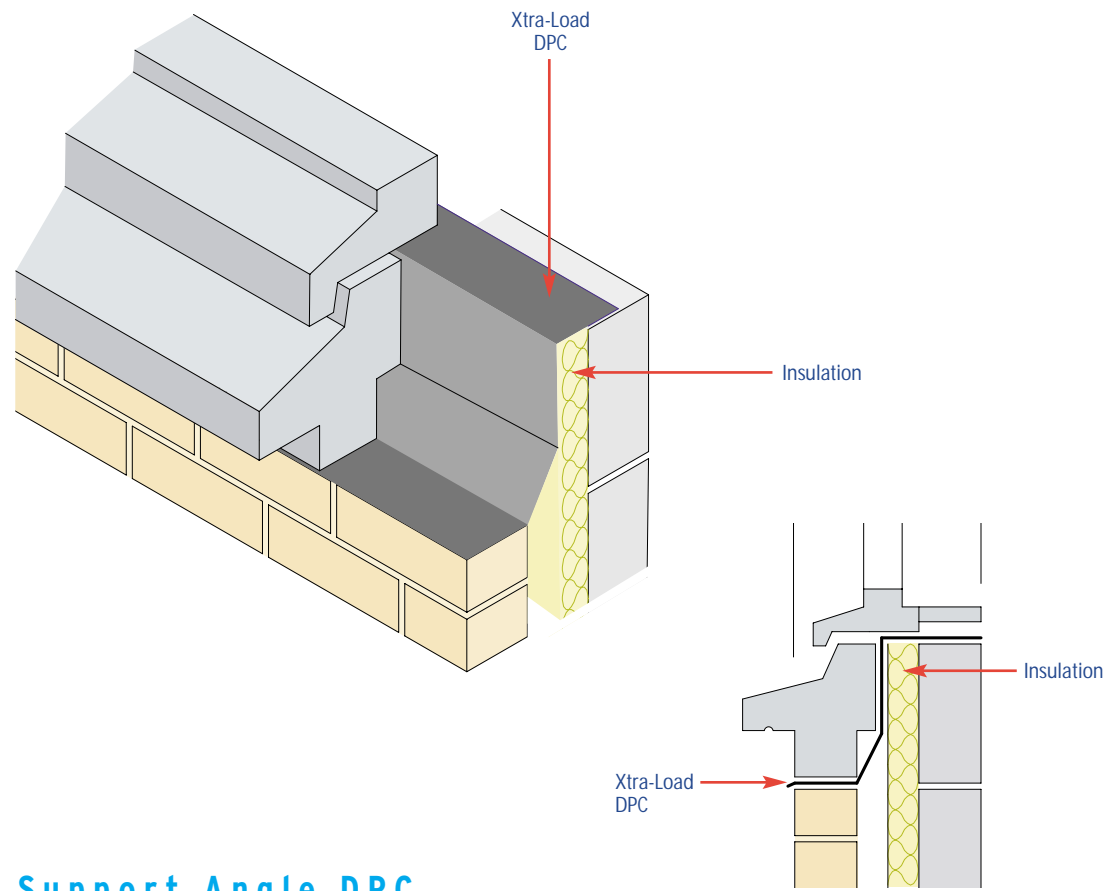


SECTION B-B THRESHOLD DETAIL

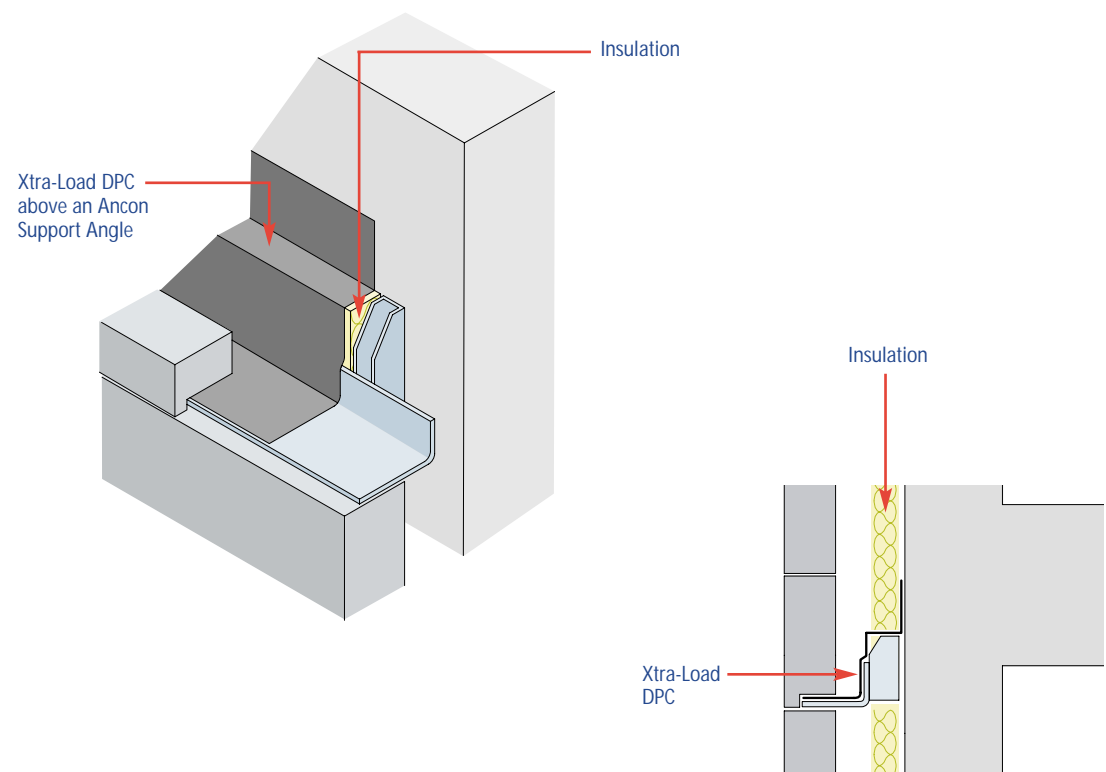


Typical Detailing CONT.

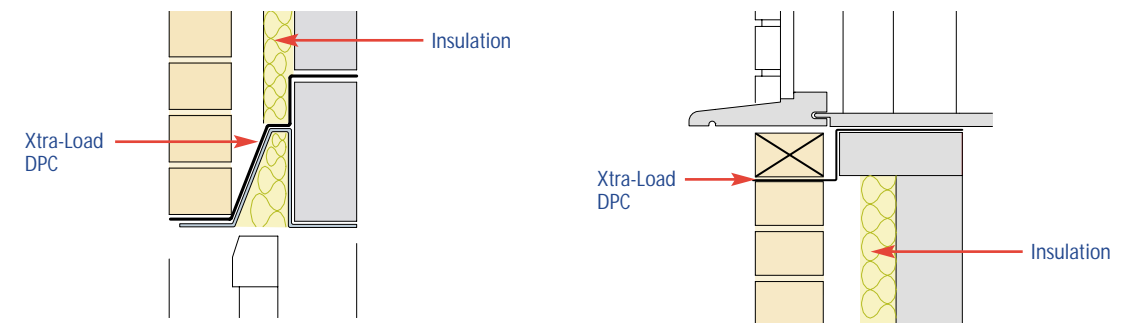
Stonework Window Cill



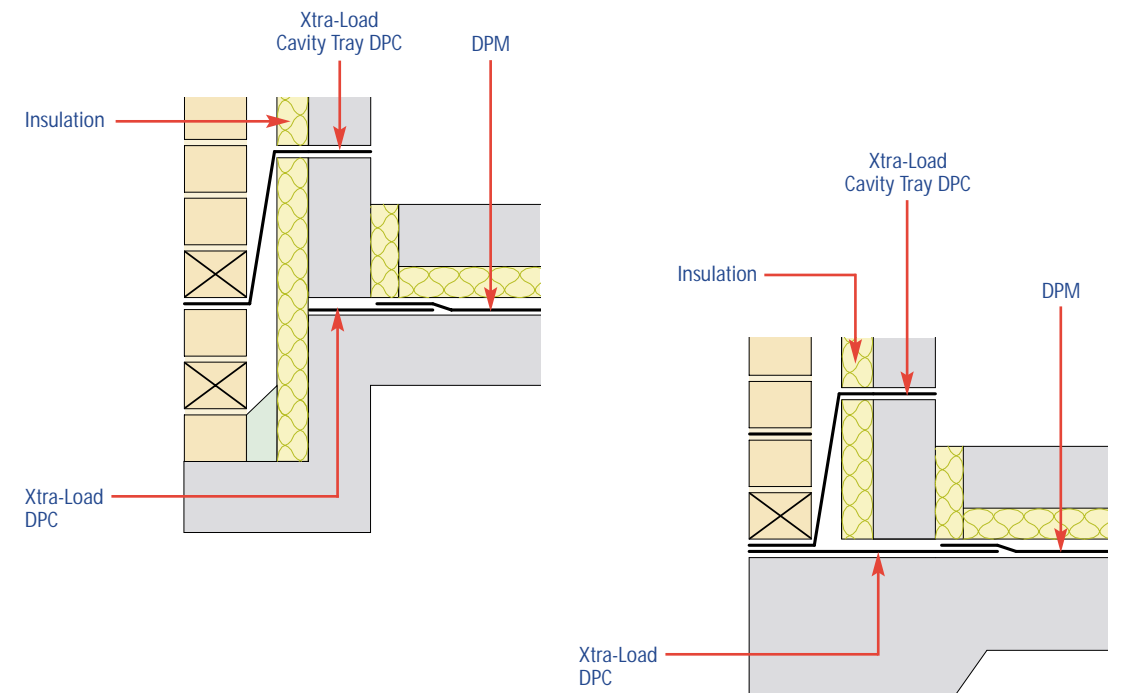
Support Angle DPC



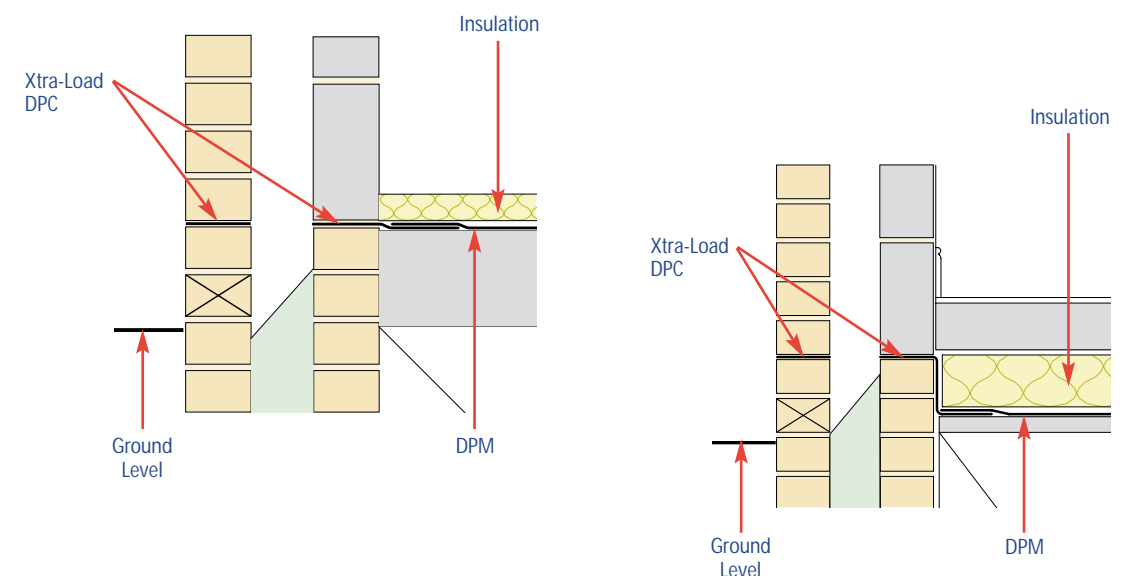
Window Head & Cill



Commercial Cavity Tray



Domestic DPC



## Pre-Formed Cavity Tray Units

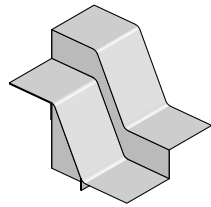
### and Joint Support Systems

These are manufactured in a variety of materials to suit the application and shown here is just a selection of the standard units available, supplied in right or left-handed versions where applicable. For a full listing or to discuss the supply of bespoke units for individual projects, please contact our sales team or visit [www.monarflexanderson.co.uk](http://www.monarflexanderson.co.uk)

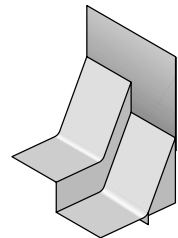
#### Key Benefits

- Simple, proven way to comply with BS 5628:3:2001
- Quick and easy to handle on site
- Integral Joint Support
- High performance waterproofing for complex shapes and direction changes
- Variable cavity width

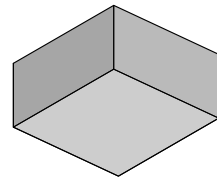
CHANGE OF LEVEL  
XL 110 RH



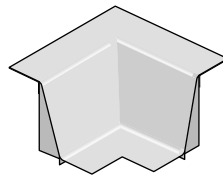
CHANGE OF LEVEL  
XL 220 LH



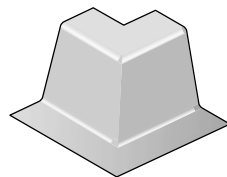
LINTEL STOP END  
XL 330



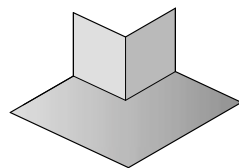
INTERNAL CORNER  
XL 340



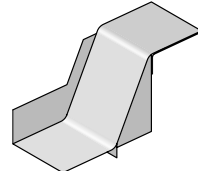
EXTERNAL CORNER  
XL 420



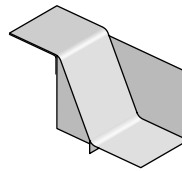
INTERNAL CORNER  
SURFACE FIXED  
XL 440



STOP END  
XL 510 LH



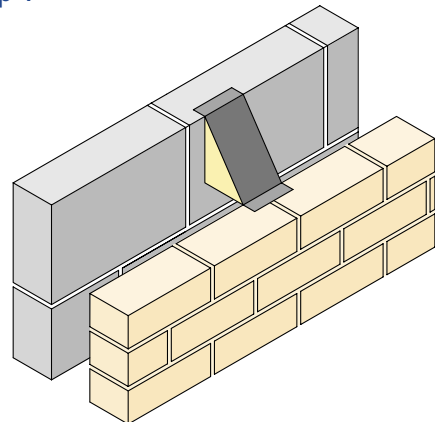
STOP END  
XL 610 RH



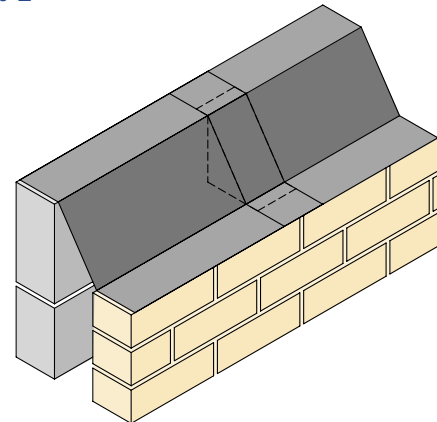
### Xtra-Load Joint Support System to BS5268-3:2001 (clause 5.5.5.4)

The Joint Support System is required at all lap joints to ensure that a water tight seal is maintained.

#### Step 1



#### Step 2



## Ancillary Products

#### Xtra-Load Joint support system:

Pre-formed support units to facilitate an adequate seal at lap junctions. Use of units as preferred in BS 5628-3:2001

#### Xtra-Load DPC Jointing Tape:

A double sided jointing tape used for sealing laps or as a surface fixing application.

#### Xtra-Load DPC Fixing Strip:

A semi-rigid, PVC security band, pre-drilled with 6mm holes at 150mm centres.

#### Xtra-Load Engertherm:

An insulated polyethylene foam bonded to Enger Seal DPC. Used as a cavity closer, avoiding thermal bridging.

#### Xtra-Seal Quick Drying Primer:

A black bitumen priming solution facilitating surface fixing of DPC's



## Installation

### Approved Contractor Network

Extensive research conducted by the National Structural Waterproofing Association (NSWA) concluded that over 60% of damp proof courses are installed incorrectly and that the biggest cause of failure was ingress of water.

Building waterproofing can be a complex issue and any errors in installation could lead to failure and possible specifier liability. Provided that our installation recommendations are followed, you will have peace of mind in knowing that you can demonstrate compliance with the Code of Practice.

#### Dedicated to raising standards

NSWA operates a register of approved trade members who are independently assessed to ensure they meet the association's strict criteria for delivering improved standards of workmanship, using the best products and systems available in order to ensure long term reliability.

### Installation Steps

- 1 The DPC must extend through the full thickness of the wall leaf, including the pointing and any rendering or other applied material
- 2 The DPC should be laid on an even bed of wet mortar. Perforations in adjacent courses must be completely filled with mortar
- 3 Lap joints must have a minimum 100mm overlap
- 4 Pre-formed cloaks must be used at stop-ends, corners and any changes in cavity tray level
- 5 Ensure that the DPC is not damaged by cavity cleaning after installation

#### 6 During subsequent work:

- a) Use cavity battens to protect the DPC from mortar droppings
- b) Remove any droppings before they harden
- c) Inspect cavity trays to check for damage

#### 7 When a DPC is used with boot lintels or similar, we recommend that the material is installed to follow the lintel profile

#### 8 Positioning of the cavity tray DPC will be relative to insulation

## Technical Support

### NBS Specifications

NBS specification clauses for all Monarflex Anderson products are included in the NBS PLUS section of NBS Specification Writer/Specification Manager Software. Copies of the clauses are also available from Monarflex Anderson.

Our specialist design team is there not only to help you set your design criteria but also to deliver a complete waterproofing system design solution based on your individual needs, including CAD drawings where appropriate.

For more information call

**0161 865 4444**

or visit [www.monarflexanderson.co.uk](http://www.monarflexanderson.co.uk)