

84	Lapping & Jointing
86	Service Pipe Penetrations
87	Sealing to Cavity Wall Constructions
88	Protecting Membranes
90	System Components

INSTALLATION/ SYSTEM COMPONENTS

LAPPING AND JOINTING

To ease the installation process we have created a step by step guide to all our system components to ensure effective jointing, continuity and protection.

GENERAL PRECAUTIONS FOR INSTALLATION

- Ensure that all surfaces to be jointed are dry, clean, and free from grease, mortar droppings, etc.
- Do not joint membranes and DPC/cavity trays in temperatures below 5°C. In temperatures between 5 and 10°C, some warming with a hot air gun may be required.
- Use a roller to exert maximum pressure when joining sheets with Visqueen DPM Double Sided Jointing Tape.
- If the membrane is below a steel reinforced floor, concrete slab, cover with a screed or Visqueen Heavy Duty Protection Board prior to the positioning of the reinforcement.
- If the membrane is above the slab, delay installing the membrane until just before laying the screed or flooring topping (or thermal insulation where above the slab) to avoid damage from site traffic.
- Ensure that any screed laid directly on the membrane is at least 50mm thick.

IMPORTANT

The illustrations shown are for guideline installation purposes only. For the relevant system components for your application, please refer to the products "system components" table on p90

HOW TO LAP AND JOINT A MEMBRANE ABOVE A FLOOR SLAB

Visqueen Radon (red) membrane used for illustrative purposes only.



1 Remove loose debris from the surface of the floor slab and unroll the first sheet of membrane. The surface of the slab should be smooth and free from projections or indentations – If very rough, apply a sand blinding.



2 Remove the protective paper from one side of the appropriate jointing tape and apply it to the first sheet, starting about 50mm from the edge. Ensure that all surfaces are dry for maximum adhesion.



3 Unroll the second sheet along the joint, overlapping the first by at least 150mm. Press firmly onto the double sided tape, gradually removing the protective paper.



4 Seal the edge of the overlap with appropriate sealing tape.

HOW TO JOINT THE CAVITY TRAY TO THE MEMBRANE AT THE FLOOR PERIMETER

Visqueen Radon (red) membrane used for illustrative purposes only.



1 Install the DPC starting from the outside of the external wall, over the inner masonry leaf and finishing at least 200mm from the wall.



2 Just before the floor topping is applied (or floor slab is cast), clean any mortar droppings, or other debris from the DPC. Remove the protective paper from the appropriate jointing tape and apply the tape to the DPC, starting about 50mm from the edge.



3 Lay the membrane over the floor slab (or subfloor blinding), overlapping the DPC by at least 150mm. Press firmly onto the appropriate jointing tape, gradually removing the protective paper.



4 Seal the edge of the overlap with appropriate sealing tape.

HOW TO INSTALL A PRE-WELDED MEMBRANE



Ensure Visqueen Gas Barrier is laid on a level blinded surface.



Carefully unroll the pre-welded membrane.



Ensure that the membrane is not damaged during the unfolding process.



Visqueen Pre-Welded Membrane will fit exactly to the footprint dimensions.

HOW DO I REPAIR A GAS MEMBRANE IF PUNCTURED OR PERFORATED?

Any tears or punctures in the membrane should be patched using a piece of the same material sized to overlap at least 150mm beyond the extent of the puncture, the lap being bonded with Visqueen Double Sided Jointing Tape and sealed with Visqueen Foil Lap Tape.

HOW TO LINK PREFORMED COMPONENTS TO FORM A SEAL AT CORNERS



1) Build the masonry up to the height of the horizontal joint where the cavity tray is to be built in. Place the preformed upstand unit tight into the corner of the masonry wall.

2) Remove the protective paper from the back of the Visqueen Double Sided Jointing Tape and apply it to the upstand unit at a height that will ensure a good overlap when the downstand unit is in place. Remove the protective paper from the face of the tape.

3) Place the preformed downstand unit tight into the corner with the horizontal element sitting on the masonry wall. Press the vertical leg of the downstand unit firmly against the upstand unit, starting at the internal corner and working outwards.

4) Apply two lengths of double sided tape vertically across both upstand and downstand units, one on each return wall, ready to receive the lengths of cavity tray. When the cavity trays are sealed to the upstand units, join them to the floor membrane.

SERVICE PIPE PENETRATIONS

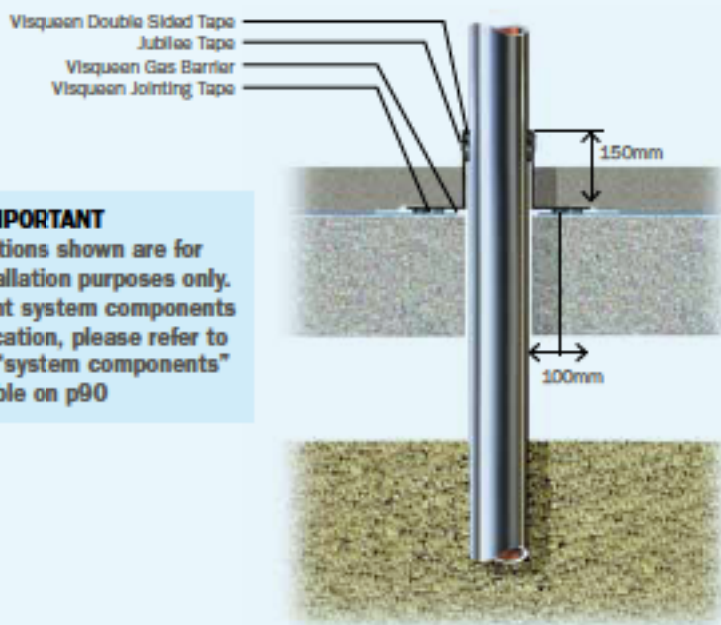
Damp proof and airtight seals should be formed around all service entry points. Visqueen Top Hat Units are available for sealing around pipe units. The full system consists of;

- Rigid preformed pipe sleeve (top hat) unit – available for either 110mm, 135mm or 160mm external diameter pipes.
- Flexible preformed pipe sleeve (Top Hat) unit – supplied to suit pipe external diameter as required.
- Double sided jointing tape.
- Girth lap tape.
- Foil lap tape – for gas applications.

IMPORTANT

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A TYPICAL TOP HAT DETAIL



HOW TO MAKE A GAS-TIGHT SEAL WHEN A PIPE PASSES THROUGH THE MEMBRANE

Visqueen Radon (red) membrane used for illustrative purposes only.



1 Cut a circular hole in the membrane as close as possible to the pipe, or pipe socket. Ensure that pipe penetrations do not occur at joints in the membrane.



2 With the pipe in position, slide the Visqueen Preformed Top Hat Unit over the pipe (various diameters are available – 110mm being the most common).



3 Mark the extent of the square horizontal skirt over the membrane and also mark the line of the top of the top hat unit around the pipe.



4 Raise the top hat unit and cut four lengths of Visqueen Double Sided Jointing Tape, one for each side of the horizontal skirt. Allowing for an overlap at each corner. Cut one length to go round the pipe.



5 Start to remove the protective paper from the double sided tape around the pipe and raise it up at an angle so that it will project above the top hat unit when it is stuck to the membrane.



6 Release the protective paper from each of the four lengths of double sided tape. Lower the top hat unit, ensuring that the free end of the protective paper around the pipe is reachable, and seal the horizontal skirt to the membrane.



7 Gradually remove the remainder of the protective paper from the double sided tape around the pipe.



8 Seal the junction of the horizontal skirt and the membrane with the appropriate sealing tape and secure the top hat unit to the pipe with a jubilee clip.

SEALING TO CAVITY WALL CONSTRUCTIONS

Visqueen supply various components to secure the DPC (tray and preformed units) to cavity wall constructions. The most common surface fix or face fixed applications are shown below.

VISQUEEN ZEDEX DPC FIXING STRIP AND PINS FOR MASONRY

DESCRIPTION

The fixing strip is a semi-flexible black plastic strip which is pre-drilled at approx. 150mm centres. The fixing pin is robust and strong incorporating a central nail. By hammering the central nail into the body of the fixing, it expands the fixing and secures it in the drilled hole.

APPLICATION

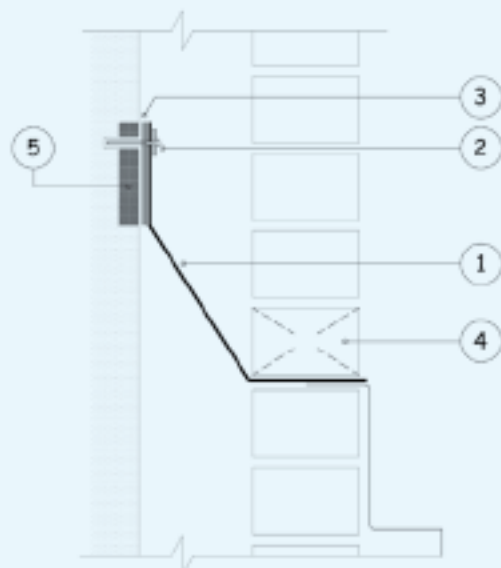
For securing surface (face) fixed DPC cavity trays to blockwork, cast concrete, etc, inner leaves of cavity wall constructions.

INSTALLATION

- Bond the vertical portion of the cavity tray to the inner leaf with Visqueen Zedex DPC Jointing Tape.
- At one end of the fixing strip, drill a 6mm diameter hole (through the DPC and tape) into the inner leaf of the cavity wall, to a depth of 55mm, using the hole in the fixing strip as a guide.
- Insert the fixing pin through the fixing strip into the drilled hole and secure in position.
- Repeat for each hole of the fixing strip.

A TYPICAL STANDARD SURFACE FIXING DETAIL FOR MASONRY IS SHOWN BELOW (SF-01)

KEY: 1) Visqueen Zedex CPT DPC (preformed cloaks to suit). 2) Visqueen Fixing Strip (25x2mm, pre-drilled with 8mm Ø holes). 3) Visqueen Zedex 100mm Jointing Tape on primed, flush inner skin. 4) Weepholes at 900mm centres (min 2no. per opening). 5) Visqueen HP Tanking Primer.



VISQUEEN ZEDEX DPC FIXING STRIP AND PINS FOR INSULATION

DESCRIPTION

The fixing strip is a semi-flexible black plastic strip which is pre-drilled at approx. 150mm centres. A strong and robust fixing pin with the purpose of securing the fixing strip and cavity tray in position.

APPLICATION

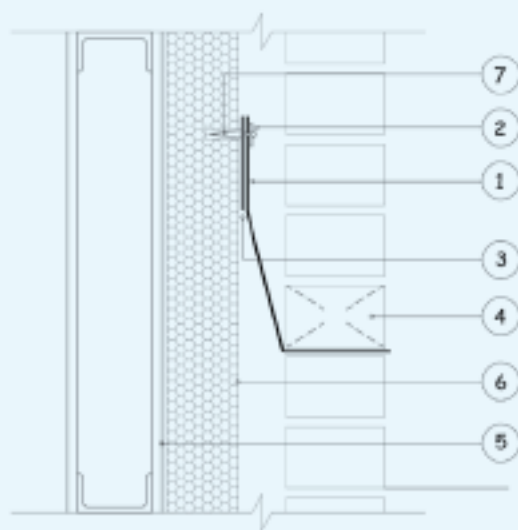
For securing surface (face) fixed DPC cavity trays to the rigid urethane foam facing of composite inner leaves in cavity wall constructions.

INSTALLATION

- Bond the vertical portion of the cavity tray to the inner leaf with Visqueen Zedex DPC Jointing Tape.
- At one end of the fixing strip, use a bradawl to form a pilot hole (through the DPC and tape) into the insulation, using the hole in the fixing strip as a guide.
- Push the fixing pin through the fixing strip into the pilot hole.
- Repeat for each hole of the fixing strip.

A TYPICAL STANDARD SURFACE FIXING DETAIL FOR METAL FRAME IS SHOWN BELOW (SF-02)

KEY: 1) Visqueen Zedex CPT DPC (preformed cloaks to suit). 2) Visqueen Fixing Strip (25x2mm, pre-drilled with 8mm Ø holes) Visqueen Fixing Pins at 150mm centres. 3) Visqueen Zedex 100mm Jointing Tape. 4) Weepholes at 900mm centres (min 2no. per opening). 5) Metal frame construction by specialist. 6) Rigid insulation board. 7) Visqueen No.2 Fixings.



PROTECTING MEMBRANES

Visqueen offer three different protection boards to suit a variety of applications. From a bitumen composition to a reinforced LDPE blend, the varying boards are all;

- Light and easy to handle: allows ease of storage and transferring on site.
- Easy to install – can be cut and shaped on site.

VISQUEEN PROTECTION BOARDS

Heavy Duty – a tough, durable and rot resistant bituminous board that protects DPMs and tanking DPMs against mechanical damage, pedestrian or vehicular traffic and puncture from backfilling. Available in 1m x 2m x 3mm board.

Light Duty – a strong corrugated plastic board that protects Stormwater, UDG, membranes from backfill. Also protects loose laid membranes from following trades. Available in 1.22m x 2.44m x 3mm board.

High Impact – a reinforced PE compound board that protects DPMs and tanking DPMs against mechanical damage, pedestrian or vehicular traffic and puncture from backfilling. Available in 1.22m x 2.44m x 1mm board.

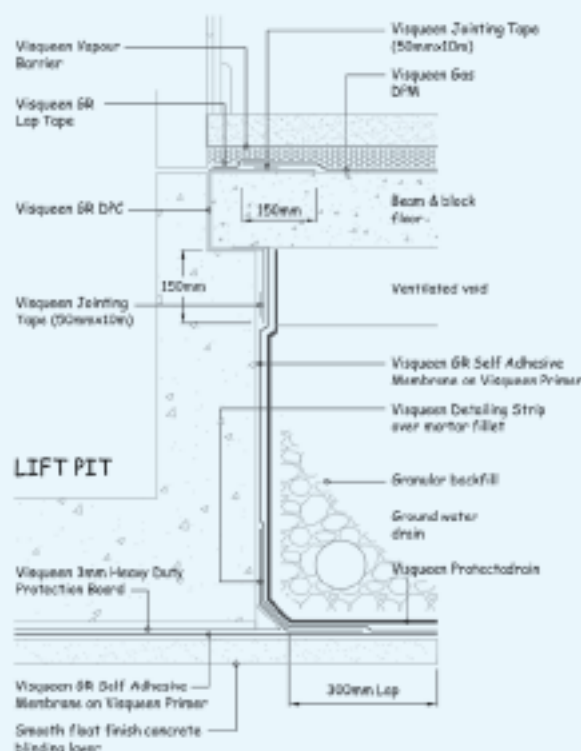
Protect&Drain – acts as a heavy duty protection medium for Visqueen damp proofing, gas proofing and tanking membranes. The product is 6mm thick and supplied in rolls 1.1m x 50m.

INSTALLATION

Boards are loose laid and butt jointed. Where necessary the joints can be over taped with Visqueen Girth Jointing Tape applied equidistant over the junction. Ensure surfaces are clean and dry prior to application of tape. Apply pressure to the tape to ensure adhesion.

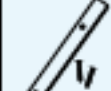
An example detail shows where protection boards are used.

EXTERNALLY TANKED LIFT PIT SUSPENDED FLOOR (SW-03)



VISQUEEN WATERPROOFING & GAS PROTECTION SYSTEM COMPONENTS

The table below details the various components required to ensure effective jointing, continuity and protection.

		 50mmx10m DOUBLE SIDED BONDING TAPE	 100mmx33m GIRTH SEALING TAPE	 75mmx50m FOIL SEALING TAPE	 150mmx10m GAS RESISTANT LAP TAPE	 100mmx15m DPC JOINTING TAPE	 SURFACE DPC FIXING SYSTEM	 300mmx10m DETAILING STRIP
DAMP PROOF COURSES	ZEDEX CPT DPC					●	●	●
	ZEDEX HIGH BOND						●	●
	ZEDEX HOUSING GRADE					●	●	●
	POLYETHYLENE DPC					●	●	●
	GX DPC				●		●	●
	GR DPC					●	●	●
DAMP PROOF MEMBRANES	ECOMEMBRANE	●	●					●
	DPM TO PIFA	●	●					●
GROUND GAS PROTECTION	RADON	●		●	●	●		●
	CO ₂	●		●	●	●		●
	LP GAS MEMBRANE	●		●	●	●		●
	GAS BARRIER	●		●	●	●		●
	GX GEOMEMBRANE					●		●
TANKING	SELF ADHESIVE							
	GR SELF ADHESIVE MEMBRANE							
	TORCHON							
	GX PRE APPLIED MEMBRANE					●		●
STORMWATER	URBAN DRAINAGE GEOMEMBRANE							
	HP URBAN DRAINAGE GEOMEMBRANE				●			
	GX GEOMEMBRANE UDG				●			
	HANSON AQUAFLOW							
VAPOUR CONTROL LAYERS	VAPOUR CHECK	●						
	VAPOUR BARRIER	●						
	HP VAPOUR BARRIER	●						
	HP FB VAPOUR BARRIER	●						

