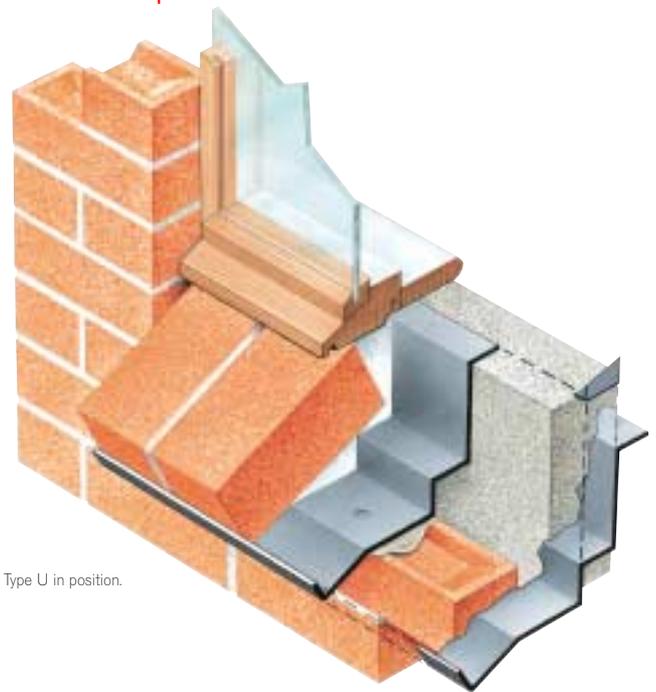


# Type U Cavitytray

for undersills



Type U in position.

DAMP-PROOFING

- Shaped DPC cavitytray
- Integral sill alignment facility
- Removable front section
- Ensures consistent build detail
- Selection of profiles
- Traditional or timber-frame construction

## designers' comments

BS5628 stipulates that all pervious or jointed sills or sub-sills should be provided with a DPC for the full length and width of the sill bed. There is also a secondary requirement for the DPC to be turned up at the back and ends for the full depth of the sill, where it is in contact with the backing (internal skin). A brick sill subjected to a 20°C temperature rise will expand by 0.10-0.16mm/m (millimetres per metre). Such thermal movement often results in small fissures or fractures within a sill mortar bonding joint. The benefit of the sill DPC arresting any rainwater which enters the sill detail is paramount.

Permits easy compliance with NHBC 6.1 - S4(d) and 6.2 - D4(a) (Moisture control and insulation). Exposed site classification. The preformed rigid shape also avoids the common site problem of misplacement of conventional DPC material.

## problem

How to protect masonry sills against damp penetration.

## introduction

The formation of a brick or tile sill is easily accomplished with the use of a Type U undersill tray. Trays are supplied in a variety of profiles to suit the shape of sill required. Once bedded in position, the bricklayer has automatically established an undersill DPC. The sill bricks or tiles can then be laid using the profiled tray as integral guide shuttering.

## solution

The Type U cavitytray is a preformed DPC unit. It is profiled to also form integral shuttering to receive sills constructed of masonry or tile.

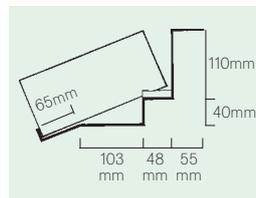
The Type U cavitytray is enveloped within the building structure providing the ideal purpose-shaped DPC. An upturned external edge lip is supplied to the front of the Type U cavitytray. This acts as a guide to provide accurate tile or brick sill alignment.

The entire front section of the Type U which projects forward of the masonry line,

is fully detachable. An integral separating link, permits this front portion of the tray to be removed, once the mortar has cured. The front bedding area of the Type U undersill cavitytray which is incorporated within the external skin features apertures which aid positioning and permit transit drainage.

## insulation option

Type U undersill trays are now available with an optional 25mm polystyrene insulation barrier, bonded to the vertical upstand (subject to sill design or space permitting). Specify clearly if this option is required.



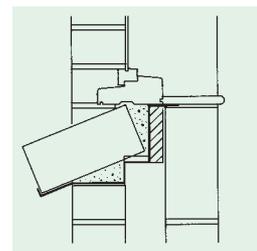
Variations to the profile and variations to the material thickness can be accommodated to suit the customer's requirements.

## design considerations

The Type U undersill cavitytray may be used with timber-frame build and traditional build construction. The extent of differential

movement is usually more pronounced with timber-frame and allowance is required for the direction of shrinkage, as per NHBC Performance Standards. This is easily accomplished using the Type U undersill cavitytray.

An expansion gap should be pointed in with Siliconbond to provide a weatherproof detail. See NHBC Design Performance Standards, 6.2 D6(c). (An expansion gap is applicable to all forms of construction but when timber-frames are employed the movement factor is normally greater.) At all times the designer should ensure that the proposed sill design is sufficient to create a strong mass of construction in terms of strength, proportions and service.

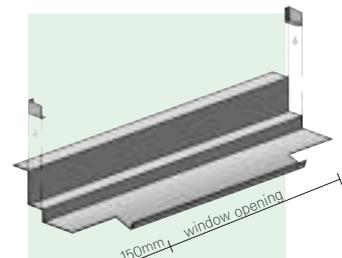


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## sizes

The Type U is available in a range of profiles. One may select an appropriate profile to suit the angle of sill required and the material in which the sill is to be formed. Examples include brick, tile, or stone in solid or module form. Popular profiles are illustrated and the extent of variations available to suit client's specific needs is extensive.

Our design department will be pleased to advise upon your requirements and submit recommendations. Patent restrictions often dictate our undertakings and we will advise the most appropriate Type U style in which your proposed sill detail can be accommodated. Maximum length 2400mm.



The Type U ideally extends beyond the structural opening. Always clearly state the opening dimension and the overall dimension.

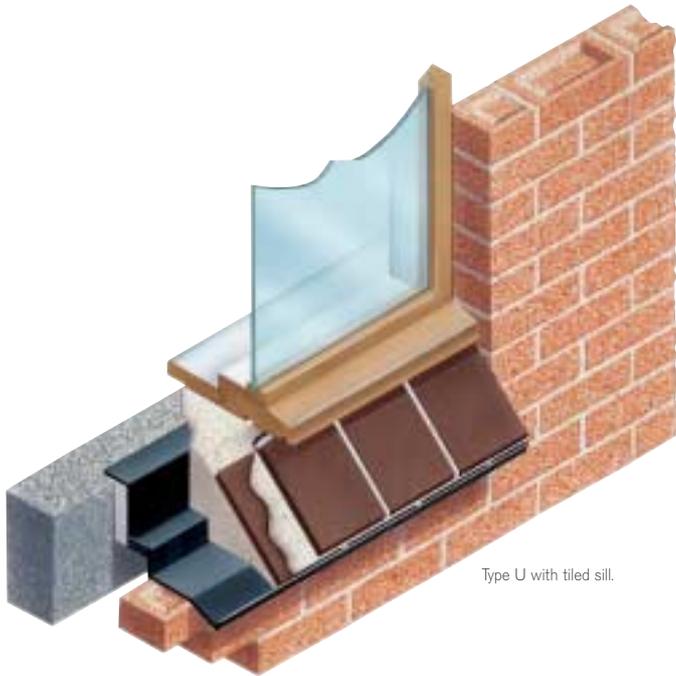


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Cavity Trays

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Glove-lap to make up longer lengths. Minimum 200mm. Stopends for use with Type U undersill cavitytrays are supplied separately to permit the installer to incorporate them on site in the most appropriate position. If the sill feature is of a greater width than the opening dimensions, specify sufficient tray length to service this requirement.

## type U undersill (alternative style)

Type U undersill cavitytrays are also available for use with solid concrete, reconstructed and natural stone sills. In the example shown, the Type U is acting as an arresting barrier whilst providing DPC integrity between the pre-cast sill and the internal skin. The DPC has not been returned in the bedding course immediately under the sill, but instead is terminated approximately 75mm lower. This approach permits collected water to be safely discharged via Type W weepvents.

This profile promotes water evacuation of the cavity and breathing of the cavity void - a benefit which is not possible if the DPC is returned at a higher level.

## material

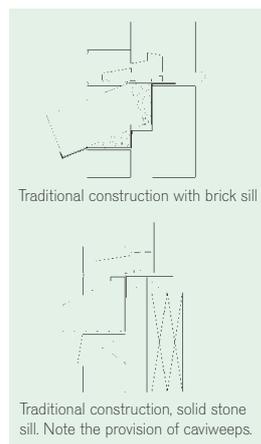
2mm black polypropylene with Securtext top surface finish. Insulator typical sampled thermal conductivity: 0.037.

## colour

Black polypropylene.

## installation/site work

Type U undersill cavitytrays should be handled and bedded in position in the same manner as conventional DPCs and lintels. Do not dry bed. Locate undersill cavitytray so that the back vertical section (with or without integral insulation) always rises against the skin. The front of the undersill cavitytray must be fully bedded on mortar and soundly bonded to the outside skin.



The rear of the tray must similarly be fully bedded and bonded to the inside skin. Following firm location in the correct position, traditional construction of the sill in masonry or tile may proceed.

Always solidly construct using a suitable mortar. Ensure stopends are in position. The front lip should function as a guide against which the sill edge is aligned. The front section of the Type U undersill cavitytray is removable and the break-joint should be positioned so that it is slightly forward of the faceline of the exterior skin. It is recommended that an expansion gap (6mm) is left between the top of brick or tile sill and the underside of the frame sill. Seal at a later date using Siliconbond. Remove guide lip following setting of mortar, if desired. At all times observe the recommendations of the NHBC Performance Standards.

In the case of rendered wall, the undersill cavitytray should be of a size so that the removable front section break-line is forward of the rendered face.

## ordering/regulations

See inside back cover for details.

## related products and applications

For venting below pre-cast sills, see Type W weepvent, Euroweep-vent and small weepvent. See siliconbond for flexible caulking which may be applied to expansion gap between window sill and sub-sill.



## technical observations

Branded with name and logo as proof of type and accompanying warranty.

