

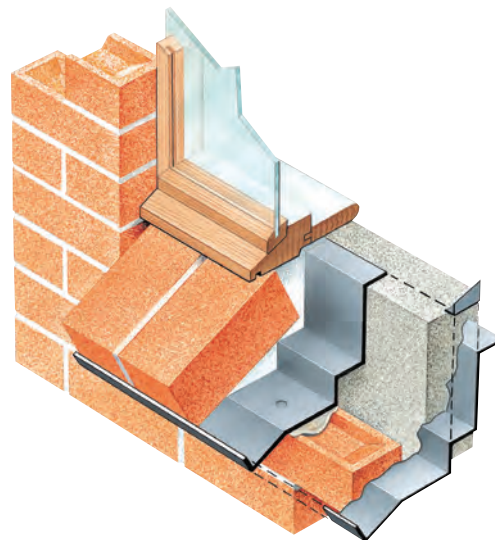
Specifications

Product name - group	Type U
Cavity widths accommodated	From 50mm up to 200mm
Dimensions	To suit to up 2440mm max in one length Glove lap to form longer runs. See examples of most popular profiles
Bespoke options	Yes designs / profile tailored to suit project
Traditional construction compatible	Yes
Timber frame construction compatible	Yes
New work applications	Yes
Retrofit applications	Possible with reconstruction
Masonry skin styles	No known limitation – flat finishes
Undulating masonry faces	Compatible
Curved wall on plan applications	Yes – see Curved Wall entries
Jointing method	Glove lap 150mm if over 2400mm
Congruent with other wall elements	No identified incompatibility
Arrested water evacuation	Integral transient drainage apertures
Material - thermal insulation	Inskorfoan polystyrene BS 3836. 0.033
Material - Sill	Polypropylene DPC
Colour	Black
Extrudes / compresses under load	No
Pack size	Available individually
CFC	CFC Free
ODP	Zero
Regulation compliance	Yes can be used to satisfy arrestment
May be used if cavity insulation present?	Does not affect tray placement position
CAD downloads	Yes
Design considerations	Overcomes common failure of sill DPC installation not rising the full height to match sill dimension.

TYPE U

Undersill Tray

- Shaped DPC Cavitray
- Integral sill alignment facility
- Ensures consistent build detail
- Selection of profiles
- Traditional or timber frame construction



Use

To aid masonry sill formation. To protect sills from permeating dampness inwardly.

Solution

The Type U Undersill Tray is a preformed DPC unit that acts as an alignment guide when constructing a sill in brick, tiles or stone and once built-in provides the protection demanded to arrest damp penetration.

The Type U Tray can be moulded in a variety of profiles to suit the style and size of sill required.

Once bedded in position, the sill bricks or tiles can be laid using the profiled tray as an integral guide that is enveloped within the construction. To the front of the tray is a projecting upturned lip to provide accurate tile or brick sill alignment. This lip is detachable once the completed sill mortar has set.

The Type U Tray is designed to permit transient drainage through apertures moulded within its base bedded in the exterior masonry skin. To each end of the tray moulded stopends prevent discharge into the cavity.

Trays are suitable for use in both traditional and timber frame construction. Sill design can accommodate differential movement between inner and outer skins in the form of a horizontal expansion gap as highlighted within NHBC Performance Standards (Such movement can be quite pronounced between masonry and timber frame). Being a link between both structural skins, sill rotation at this point (axis) can thus be addressed, if specifically requested.

A constructed sill will normally terminate in line with the structural opening. Its ability to expand and contract unhindered (compared with building into the adjacent masonry) reduces the likelihood of subsequent cracking occurring. Projection into the adjacent masonry is possible where expansion and contraction extremes are not present.

Sill Angle

The angle (shape) of any tile or brick sill is dictated by the height of the Type U inboard rise. The height can be

selected when ordering, giving the specifier opportunity to choose the most appropriate angle to suit the intended appearance. Please state if you require the standard 40mm rise measurement shown in the profile to be changed. Alternatively, if your requirement is for a bespoke undersill tray profile, please submit dimensioned drawing.

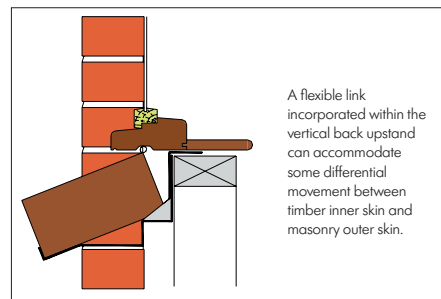
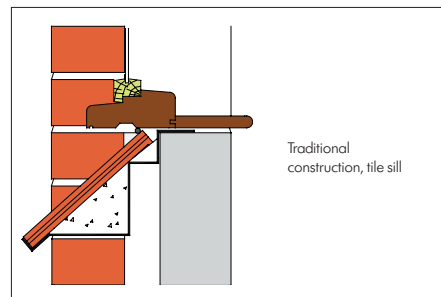
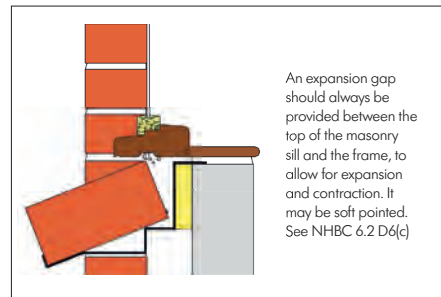
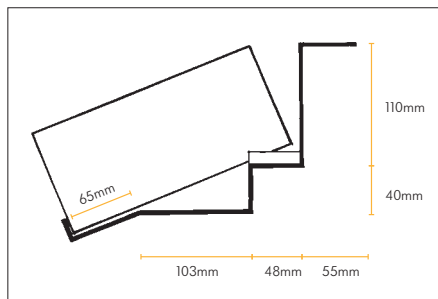
The inboard rise provides support for the back of the sill and then projects horizontally inwardly, rather than continuing parallel with the sill angle. This design permits mortar to infill under the laid sill at the back of the formation.

Sill solidity and strength is increased considerably compared with arrangements that do not accommodate horizontal infilling. (Also anticipates trades may lean ladders against sills during lifetime of structure.)

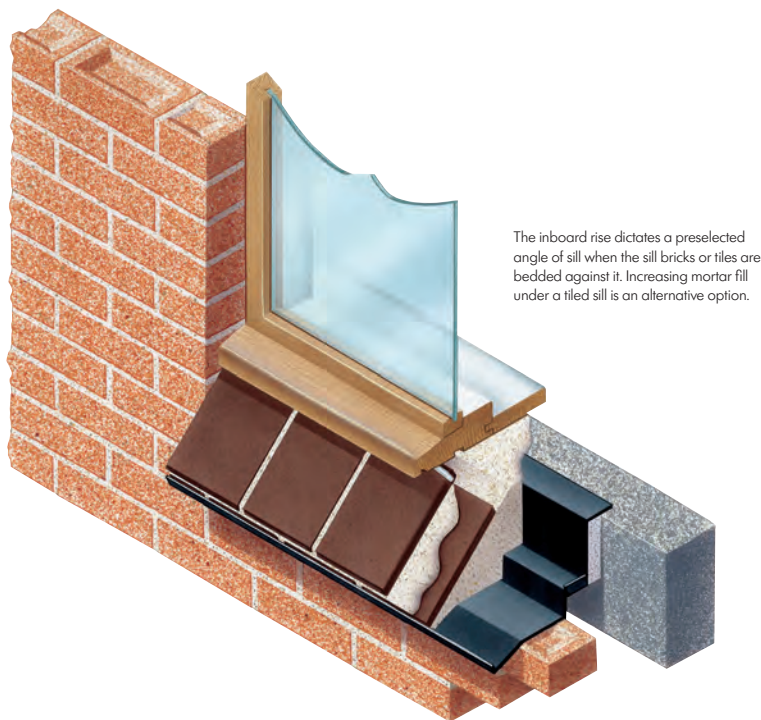
Timber Frame Construction

A flexible link can be incorporated within the vertical back upstand of the tray adjacent to the face of the timber inner skin. This provides a cushioned rather than a rigid relationship.

The entire front section of the Type U which projects forward of the masonry line may be cut off, once the mortar has cured.



TYPE U (CONTINUED)



The inboard rise dictates a preselected angle of sill when the sill bricks or tiles are bedded against it. Increasing mortar fill under a tiled sill is an alternative option.

How to Order

Popular profiles – State profile, whether sill matches masonry opening width or extends, cavity width, insulation option and lengths required.

Designers' Comments

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.

As external skin masonry dries out there is a tendency for it to slightly rise (2.5mm per storey of clay masonry) whereas an internal skin of timber will shrink and move downwards. Always anticipate and make provision for this differential movement. (UKTFA publication advice.)

It is recommended sills do not extend beyond the masonry opening. Terminating against the masonry opening will reduce the effects of differential movement. (NHBC - 6.2C)

Bill of Quantity / Specification Wording

F30 -Clause 370 Preformed Cavity Trays

Manufacturer: Cavity Trays Ltd, Yeovil Somerset BA22 8HU Tel: 01935 474769

Type U Undersill Tray to be incorporated to window openings to act as DPC and receiving formwork into which sills are to be laid. Build in carefully observing manufacturers' instructions. Number and lengths as structural window opening dimensions.

