

## Insitex® Formliners: Installation & Site Recommendations

for use with timber & timber-faced formwork.

**Specification & Use:** Insitex® formliners are supplied to ordered size (up to 6 metres max. height) & in 600mm wide panels. Both vertical & horizontal uses are applicable for use on;

Walls (sloping & vertical)

Columns (500mm min. radius)

Avoid horizontal liner joints (except where liners are used horizontally). Formliner should cover from top to bottom of the area.

**Fixing:** Formliners can be cut on site with heavy duty scissors or a sharp-bladed knife. Place correct face down against the form with overlap joints as in Fig.1, ensuring initial liner is placed square & in the correct position relative to any battens or chamfers forming edges. Fix to the form with 25mm panel pins at approx. 225mm centres down the overlap joints as Fig.1 & at the edges of the assembled panels. Allow for specified cover to reinforcing steel plus texture depth of formliner when erecting formwork.

**Sealing:** The top & bottom of the assembled formliner should be sealed sufficiently to prevent mortar from intruding between the liner & the formwork. A wood strip or plastic sheeting can be used as shown in Fig.2. Sealing the overlap joints is achieved by applying self-adhesive paper masking tape along the joint. In some circumstances & application of a silicone-type sealant to the perimeter & sides will ensure no concrete can intrude between the liner & the formwork. See Fig.4 for details. Spacer blocks for steel reinforcement where necessary should be placed on flat sections of the formliner where it is in contact with the formwork (i.e. not placed on ribs or outstanding textures).

**Tie-Holes & Spacing:** Form ties should be spaced preferably at 600mm horizontal intervals as in Fig.1 in order to occur at the overlap joints & prevent an interruption of the pattern. Heat a form-tie & insert from the rear of the formwork through the liner. Remove the heated form-tie as soon as the hole is formed & repeat for other openings.

**Release Agent:** We recommend the use of a chemical release agent with Insitex® formliners. The release agent should be applied over the complete formliner surface before every pour.

**Concreting:** Continuous pouring of concrete without delays, interruptions or cold joints is important. Vibrate well. Over-vibration is preferable to under-vibration (new users sometimes tends to under-vibrate in proximity of liners). Maintain continuous vibration to the entire top layer of concrete during pours.

**Stripping:** Strip formliners & any remaining sealing tape within 24 hours. Delays to stripping may cause colour irregularities. Where formliners have remained in contact with the concrete after form removal, peel off horizontally from left to right side when used vertically. If the liner is used horizontally, peel off from top to bottom.

**Ambient Temperatures:** When temperature drops below 5°C or when frost is likely, stripping times should be based on specified concrete maturity calculations. This seldom increases the stripping times in UK conditions beyond 24 hours.

**Re-using Insitex® Formliners:** Under normal circumstances & depending upon site conditions & handling, pattern detail, wall heights etc. Insitex® formliners can be re-used. With careful attention to fixing & stripping the liner may be used up to 5 times. Following stripping, light cleaning of the liner followed by a further application of release agent & checking for damage is necessary. Small tears can be repaired by applying a 50mm wide cloth-backed waterproof adhesive tape to the non-concrete face of the liner. This ensures that there are no holes on the liner through which grout may leak.

**Curing Recommendations:** The profile depth of the textured concrete is always extra to the structurally designed reinforcing steel cover requirements. Insitex® provides a total moisture barrier to this textural zone concrete & to the underlying structural concrete during the important period following concrete placing. After stripping of the formwork & formliner, the outer profile thickness of textural zone concrete remains as a curing blanket & provides an ideal continuous curing facility to the underlying structural concrete. Avoid post-strip curing of concrete as this can cause discolouration. N.B. in special circumstances where post strip covering is considered essential, do not use polythene sheeting but use loose hessian.

**Tie-Hole Filling:** Tie-hole filling should be left until approximately one month after concreting. Match mortar by trial admixtures using white cement, O.P.C. & white sand as necessary. Apply mortar sparingly. Next day, or before mortar has completely hardened, wire-brush surplus mortar of all textures surfaces until original tie-hole outline is observed i.e. the hole should be filled without surplus mortar around the hole.

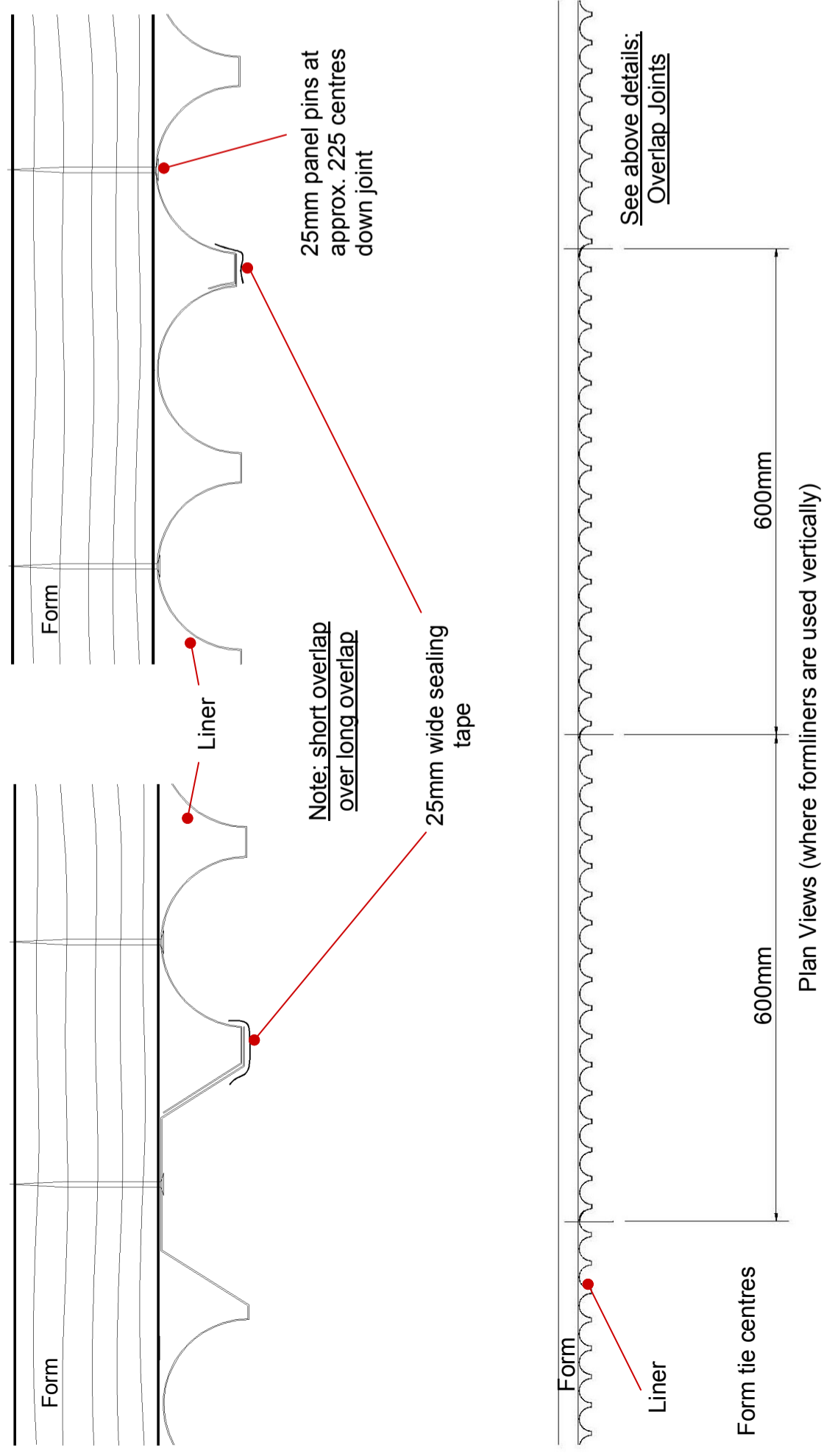
**Texture Repairs to blemishes, etc.:**

1. **Blow Holes:** some blow holes are normal on most vertical concrete surfaces & do not affect structural quality. In the case of textured concrete the outer lay is in any case extra to the basic reinforcement cover. Occasional blowholes should not detract from the overall appearance of most textured surfaces. These should be left untreated.
2. **Honeycombing:** this can occasionally occur in both textural & fair-faced surfaces even on the most closely controlled projects & repairs should be carried out with caution & close supervision. Usually, the textural outline is intact & the objective is to fill the interstices with colour-matching mortar without leaving a "battered" layer over the texture. This is achieved by wire-brushing surplus mortar off the original textural outline until only the honeycomb interstices show mortar. The original concrete should be given time to colour-stabilise & its surface should be hard enough to withstand wire-brushing without scoring, before repairs are started.
3. **Colour Variations:** these can be caused by mix variations, pour interruptions, slow pours, cold joints, lack of continuous vibration to upper concrete layers, unrepaired liner holes, delayed stripping, cold concrete in winter, curing practices, poor tie-hole filling & various combinations of such circumstances. Where colour variations occur & do not noticeably fade with six weeks & where they detract from the overall appearance, a traditional cement wash can be used without weakening the textural effect.

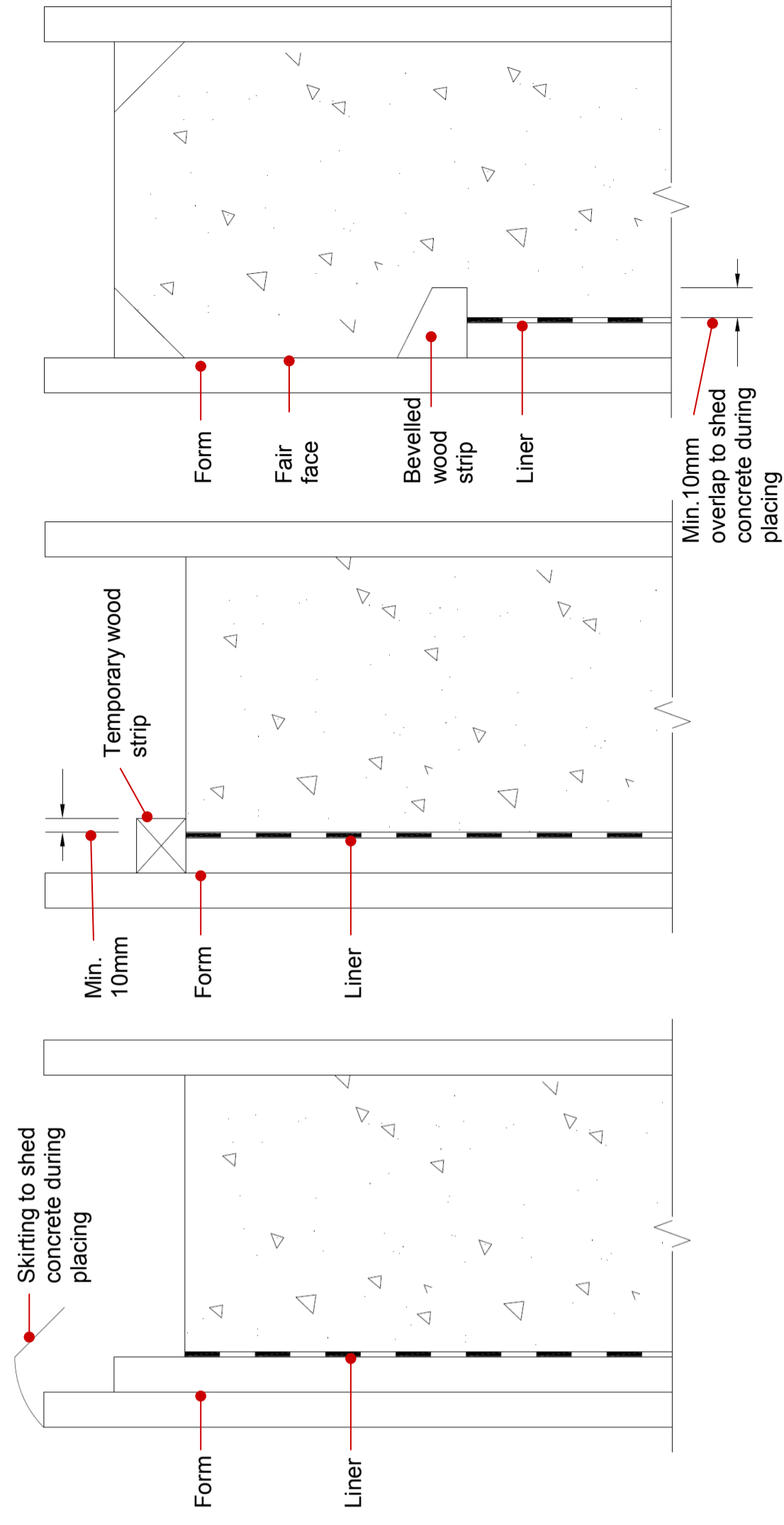
These instructions are a condensed description of factors having a direct effect on the performance of Insitex® formliners, & are based on the current state of the art. It may be necessary in future, to alter these recommendations. It is the customer's responsibility to ensure that this product is suitable for their application. **Claims for damages will not be considered if the above installation details are not followed.**

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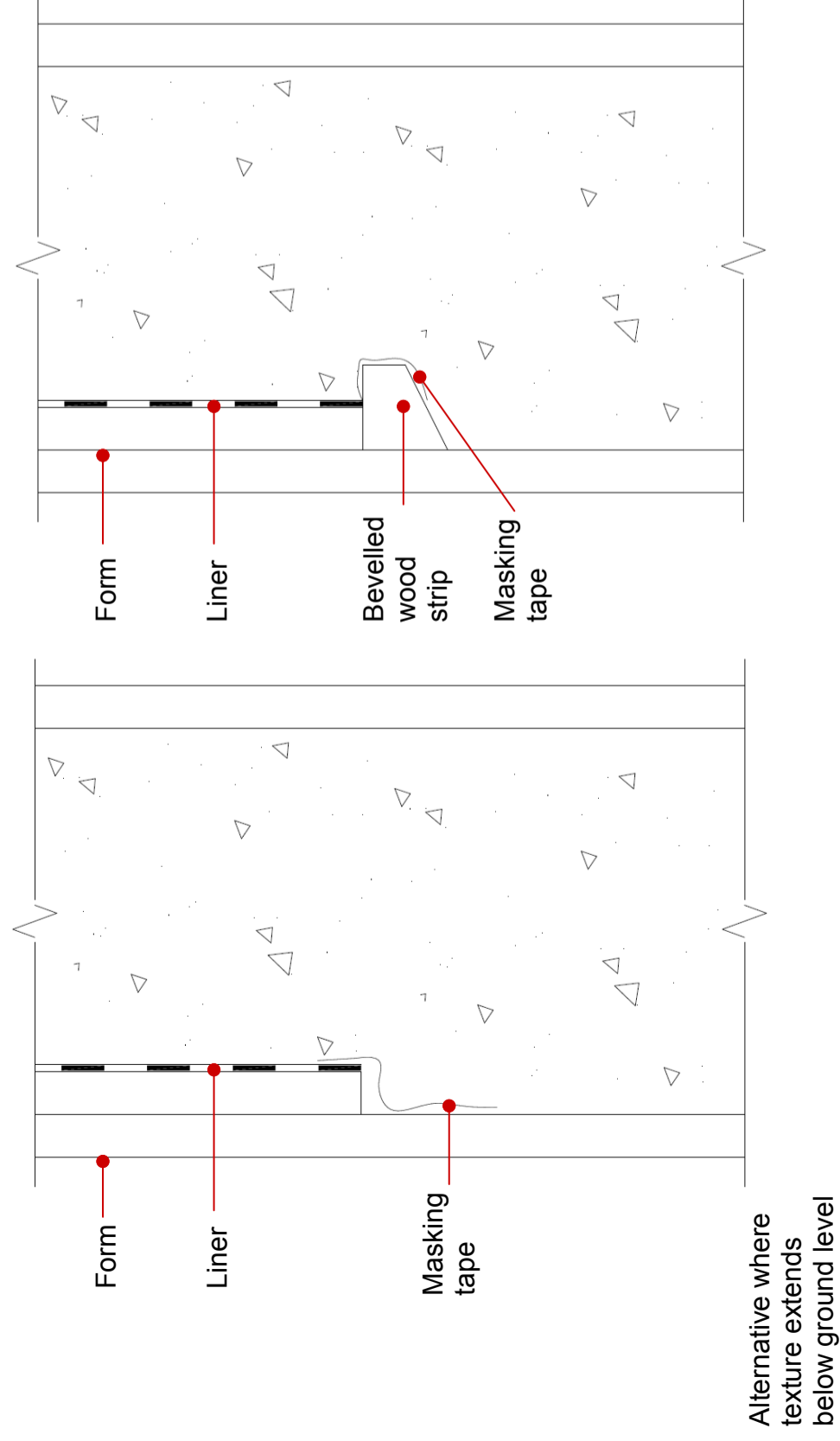
**Figure 1; Overlap Joints (Angular and Rounded)**



**Figure 2; Sealing Top of Assembled Formliner**



**Figure 3; Sealing Bottom of Assembled Formliner**



**Figure 4; Sealing Sides of Assembled Formliner**

