benx
the future of façades

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RCM
BUILDING BOARDS & FACADES

A GUIDE TO BOARD REPAIRS

Overview – Board Repairs

When a board is damaged or cracked, we advise the boards should be replaced with new. We appreciate however this is not always economically feasible or practical depending on installation stage. The suitability of board remedials will be assessed on a project by project basis and this will include factors such as the full build up, bonding, airtightness, and level of defects. If it has be agreed that the boards are suitable to be left with remedial actions, these actions will depend upon the level of damage.

PLEASE NOTE WE DO NOT RECOMMEND ANY REMEDIAL WORK ON DEFECTIVE DENSGLASS BOARDS

Common causes of board damage / cracking

Due to the nature and demanding requirements of sheathing boards we can sometimes forget the limitations of them. We most often see damage / cracking when:

- Boards are installed onto a warped / irregular substrate
- Over tightened fixings
- Fixings installed too close to board edges
- Boards stored in poor conditions
- Boards not suitably sealed against the elements

When defects appear on BENX boards it is important to ascertain the cause for these. For example – incorrectly placed fixings, poor cutting on site or stressing the board by warping it to a substrate is likely to reduce the boards strength so consideration must be made before any repair works start to ensure the board is stable and defects such as cracks do not grow.

Cracks

When faced with a **hairline crack (≈0.08mm)** a simple remediation is to use silicone sealant (FR PRO or Nullifire) and Tape (DAFA UV or RCM315). This remediation ensures moisture does not penetrate through the crack and into the board – excessive moisture can cause water ingress resulting in a compromised board – if tested, a board subject to water ingress will have a much worse pull out result than an uncompromised board.

In situations where a board has more **severe cracking**, cracks wider than 0.08mm or continuous through over 50% the depth of the board - it is typically difficult to repair this damage, however we will review this on a project by project basis – if deemed suitable the repair guide for hairline cracks may be recommended.

Where cracks pass through board fixings in a continuous chain, we strongly advise the boards to be replaced as the integrity of the board is likely to be compromised – rendering the fixings around the affected area useless. This can be caused by using the wrong type of fixings, overtightening, or trying to wrap a board around an unsuitable radius.

In isolated areas where a crack may only go through very few fixings, we may advise the board can stay but with extra fixings installed around this area in order to ensure the board is secured back to the substrate.

Any cracks that split the board by going through the complete depth in any location should be replaced as a matter of good practice. In instances where replacements are likely to suffer a repeat defect a new board should be cut into two and installed correctly.

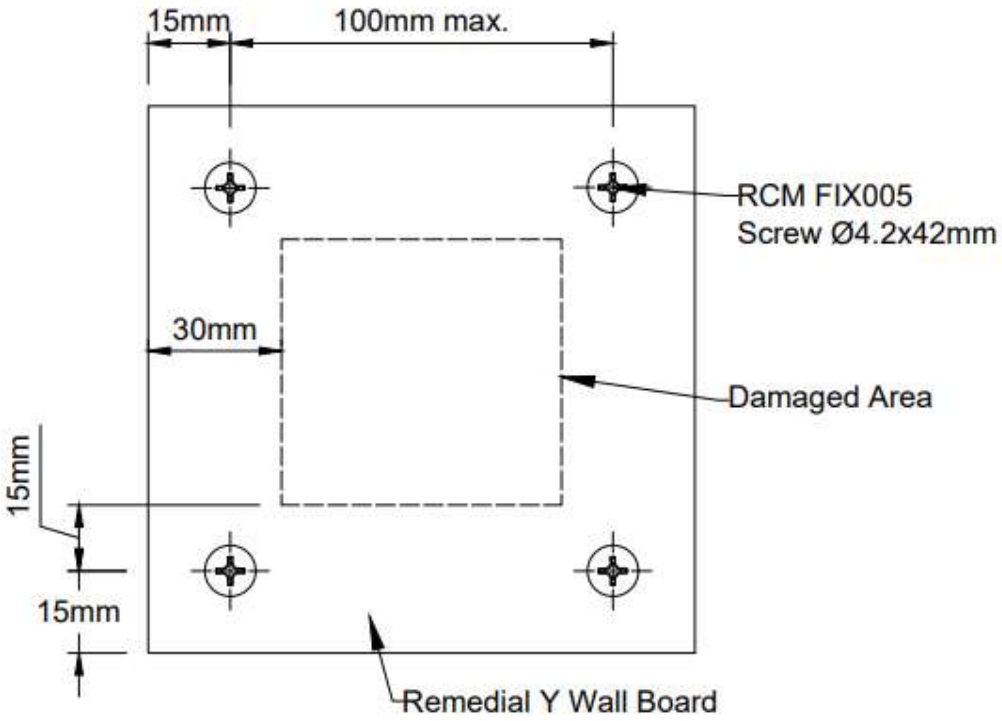
Holes

Where holes appear on boards these can be classed into two categories, small and large, both have different remedial actions. We do not have set dimensions for this distinction and will advise on the category on a project by project basis. Small holes will likely be made by the removal of fixings while large holes will likely be larger defects. In both instances the boards should be deemed suitable for use via the signoff of the project structural engineer. In instances where remediation is not accepted a full board replacement would be recommended due to the unknown affects of age, exposure and other factors including the potential for moisture ingress.

For **small holes** such as fixing penetrations these can be remedied by mastic, tape, our joint seal kit, or a combination of these remedial actions – this depends on the project requirements such as application, air tightness, fire resistance, etc.

Where **large holes** transpire such as scaffold wall ties these are more difficult to remediate, due to the diameter of the void it is unpractical to attempt to use the same techniques as identified in small holes. As a result, a piece of board (this must be the same as defective board) should be installed over the top of the hole as per the below guidance:

Please note this remedial action invalidates all expectations of the board and Benx will not be responsible for any remedial board repairs.



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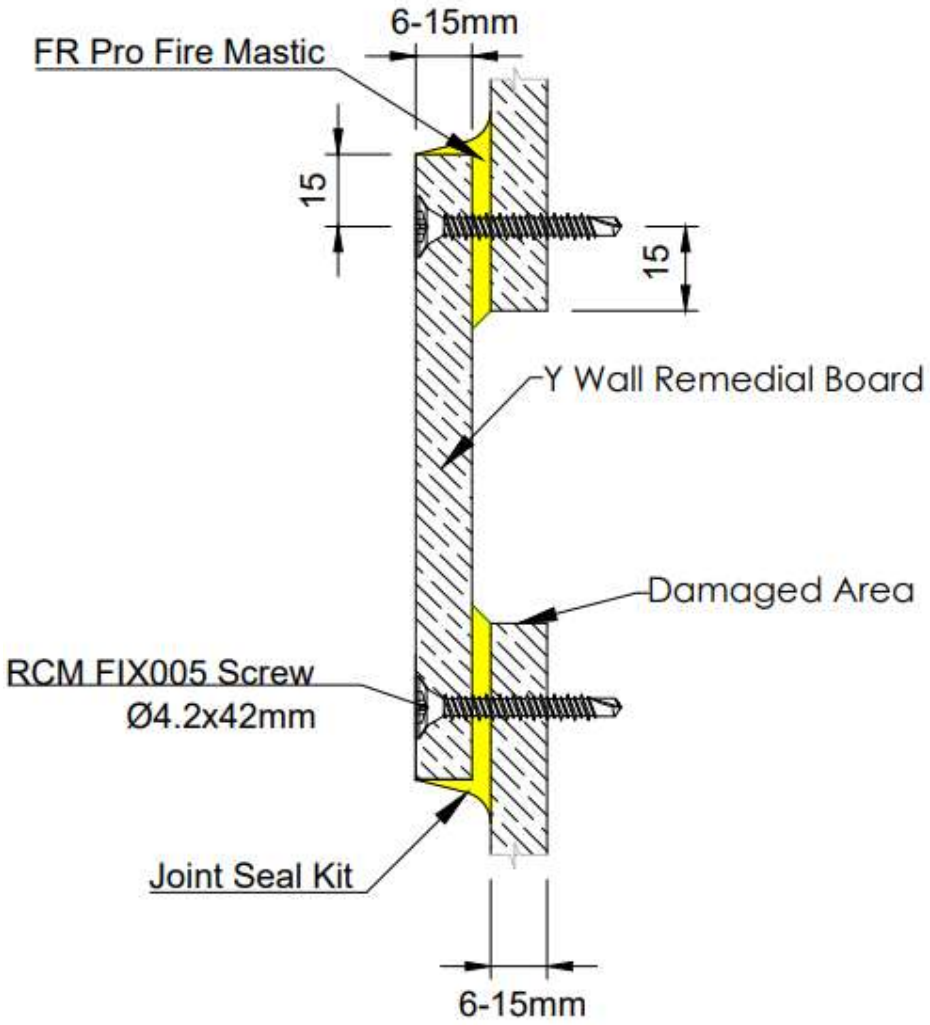

Although this shows Ywall this remedial work can be followed for all RCM boards except Densglass. This remedial works must only be done within the area of a singular board and cannot stretch over to neighbouring boards.

Disclaimer

BENX has no testing and cannot take responsibility for any of the above board repairs – these repairs are undertaken by site operatives at their discretion having known the risks and implications of the works. The quality of the repair will depend upon the remediator. Damaged / cracked boards will not be covered by a warranty due to the unknown effects of the damage / cracks present within the boards.