



Dryvit Information Sheet – Dryvit External Wall Insulation Systems (EWI) System

Movement joints - Installing, renovating or converting from a crack

1. Introduction

Occasionally an existing EWI system will require either the installation of a retrospective movement joint or a modification to an existing movement joint (width or length modification). Alternatively, where a crack has formed as a result of excessive structural movement it may be beneficial to convert it in to a movement joint. This will accommodate any anticipated future movement whilst maintaining a weathertight seal.

In all cases it is necessary to remove a section of insulation to ensure that the joint face at all terminations are back wrapped with reinforcing mesh. Depending on the geometry of abutting materials, various options can be considered to provide a proper weather tight seal. Typically rectangular joints incorporating a backer rod with sealant or a compressible seal will provide the optimal solution and ability to accommodate movement.

2. Materials

The selection and compatibility of the repair and replacement materials is very important to ensure the correct materials for the relevant EWI System are used.

Information on suitable materials, mixing and application of the system is given in Dryvit's technical data sheets, material safety data sheets and application instructions. These documents and other repair procedures and guidance are available from Dryvit UK Ltd or in the Technical Literature section of our website www.dryvit.co.uk.

3. Procedure

- 3.1. Using a sharp utility knife, cut into the EWI System a minimum of 50 mm either side of the existing crack or joint, or the centre line of the proposed or existing joint. Extend the cut to the depth of the substrate and carefully remove the cut out area.
- 3.2. Use a disc grinder or belt sander (aluminum oxide disc or belt, P40 or P60 grit with fitted dust extractor) to grind off existing finish coat and expose a minimum 80 mm on each side of the cut-out section to expose the existing base coat layer. Do not cut into reinforcing mesh with grinder. The edges of the finish should be sharp, clean and should not taper from the finish down to the base coat layer.
- 3.3. Use the factory cut edge of the new insulation board to form the straight edge of the joint.
- 3.4. To form the back wrap, the reinforcing mesh should be cut to a minimum of the thickness of insulation plus 130 mm to form the overlaps. As an alternative the insulation board can be pre-back wrapped, allowing for the minimum mesh front overlap. If a meshed bead is used refer to Section 3.9.

- 3.5. The back wrap detail is achieved by creating a minimum 65 mm adhesive bond onto the substrate at the back of the board, whilst leaving a minimum front face overlap of 65 mm. The front mesh which will be embedded into freshly applied base coat and lap over the, previously exposed, existing base coat.
- 3.6. The new insulation board is butted tightly against the existing surrounding insulation and bonded to the substrate with the appropriate adhesive. The adhesive is only applied to the back of the insulation board and must not be used to fill joints or gaps between insulation boards. Where required this should be supplemented with approved mechanical fasteners.
- 3.7. Make sure the face of the new insulation board is flush with the existing surrounding boards. Insert sliver of insulation board or use Dryvit Expanding Foam FF197 to fill any gaps between insulation the boards. Once cured cut the excess foam flush with a utility knife and lightly rasp the board to remove any surface irregularities. A 20 mm minimum joint space should be maintained between the two newly installed strips of insulation to form the movement joint.
- 3.8. Mask off the existing finish and apply the base coat at an approximate thickness of 1.5 mm over the exposed insulation board and approximately 1 mm over the adjacent exposed base coat. Fully embed the Standard Plus 150 reinforcing mesh in to the base coat and overlap onto the existing exposed reinforced base coat layer by a minimum 65 mm.
- 3.9. If a meshed bead is installed, locate the angle along the arris of the joint, the insulation can be slightly recessed, to allow the bead angle to locate flush with the surface of the insulation. The mesh on the bead is embedded into the base coat ensuring all mesh overlaps a minimum 65 mm.
- 3.10. Confirm that the base coat applied to the boards and within the joint is flat and smooth. Once completed the base coat should be recessed to the same thickness of the existing finish coat. This will ensure that the new finish will be flush with the existing finish coat.
- 3.11. Allow the base coat to dry for at least 24 hours, before precisely masking off the existing finish. If specified apply the appropriate primer to the hardened base coat and the faces of the movement joint.
- 3.12. Once the primer is dry, apply the new finish to all the exposed faces, texture and feather the edges to match the existing finish.
- 3.13. Once the finish is fully dry install a small closed cell backer rod or bond breaking tape along the base of the joint. Small intermittent dabs of sealant may be used to maintain position until the sealant is applied. This will provide the proper sealant joint geometry and to avoid three-sided adhesion.
- 3.14. Where specified by the sealant manufacturer, apply an EWI compatible sealant primer to each bonding surface and allow to dry.
- 3.15. Install the sealant in accordance with the sealant manufacturer's instructions. A minimum 10 mm contact area to the EWI surface along each side of the joint is recommended.
- 3.16. Protect the joint from weather until the sealant has adequately cure.

- 3.17 There may be a some colour variation between the patch and the surrounding area. This will become less pronounced over time.
- 3.18 To avoid a visible patch, it is generally best to skim the surface to fill in the existing texture and reapply the textured finish to a natural break
- 3.19 Environmental conditions, dirt and exposure will alter the existing colour slightly. A final application of a suitable Dryvit coating is recommended where a uniform colour is required across the whole elevation.

4 Health and Safety

- 4.1 Always wear appropriate PPE for the task undertaken including the use of suitable protective clothing, dust mask and eye protection where specified.
- 4.2 Refer to individual product Safety Data Sheets (SDS) and application instructions for full information.

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