



## Dryvit Information Sheet - External Wall Insulation (EWI) Systems

### General inspection, maintenance and cleaning

#### 1. Introduction

This information sheet provides guidance to ensure the Dryvit EWI System continues to remain effective and durable by implementing a regular program of cleaning and routine maintenance checks.

If defects are identified early, and repaired promptly, before they can cause any significant deterioration of the system, the external wall insulation system will perform its function throughout the duration of its maintainable life.

Information on 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](http://www.dryvit.co.uk).

#### 2. Regular inspection and maintenance

A visual inspection should be carried out on the system initially after the installation is complete and then repeated annually. Initially this may be carried out from ground level with the aid of binoculars.

Where required this is followed up by a closer inspection of any areas identified to be damaged. Repairs are carried out using the appropriate components, products and procedures as detailed within Dryvit's standard repair and installation instructions and in accordance with BS EN 13914-1.

The inspection should include:

- Inspection of the render for signs of damage. Any cracks in the render exceeding 0.2 mm or areas of impact damage causing small puncture holes should be further investigated and repaired, refer to Dryvit Information Sheet DIS 03.
- Examination of the sealant around openings and service entry points. If the sealant shows signs of deterioration or loss of adhesion at any inspection locations, the sealant should be removed and replaced.
- Architectural details designed to shed or carry water away from the render surface, should be checked and confirmed as performing correctly. This is particularly relevant to external downpipes, guttering, parapet capping's and window sills. Any leaks could penetrate the render leading to longer term problems associated with moisture ingress and must be corrected promptly.

- Inspection of movement and sealant joints around windows and door frames to ensure the sealant remains well bonded and retains its elastomeric properties. Any areas of obvious failure such as debonding, surface crazing, shrinkage, cracking, hardening, reversion etc will require the sealant to be removed and replaced. As a general rule, sealant should be replaced at regular intervals, typically between 10 and 15 years, this will depend on the exposure location and sealant type used.

### **3. Removing dirt and airborne pollution**

Light dirt or pollution can be removed by spraying a concentrated stream of water on affected areas. For heavier build up, first wet the area to be cleaned. Using 4.5 litres of warm water mixed with 0.3 litres of household washing up liquid, lightly scrub with a soft-bristle brush, before rinsing with water.

If power washing, keep the pressure below 600 psi and use cold water. Use a spray with a fan-tip nozzle and hold at a 45° angle from the wall, keeping the spray tip at least 600 mm from the system's surface. Do not spray the wall directly or use abrasive hard-bristle brushes to clean the system.

### **4. Removing mildew and algae**

Use a mild soapy water solution or if required a more concentrated solution to remove heavier growth. Prior to starting, protect all adjacent areas, plants and materials with dust sheeting.

After spraying the affected area with water, scrub with a soft bristle brush using a solution of 4.5 litres warm water, 1 litre of bleach and 0.3 litres of household washing liquid, before rinsing with water. Caution: wear suitable eye protection, rubber gloves and follow the manufacturer's instructions when handling bleach and detergent solutions.

### **5. Removing asphalt and tar**

These stains are difficult to remove and there is no known easy cleaning method available that won't result in adversely affecting the appearance or performance of the EWI system.

Stains must be mechanically removed and chipped or ground off before the affected area can be repaired and refinished. Power washing the surface can be an option using the guidance given in Section 3 of this document.

## 6. Removing wood tannin and metal oxide stains

Tannin can be dissolved in the water run-off from wooden balcony decking or similar. Metal oxides are typically dissolved in water and from non-corrosion resistant fixings or fixtures. Both can result in staining of the render surface. Typically, water carries the dissolved particles to the render surface, it is therefore important to locate and address the source of the staining prior to cleaning or repairing the system.

In some case these stains can be simply removed by following the recommendations given in Section 4 *Removing mildew and algae*. In more stubborn cases, once cleaned and dry, the stained area can be overcoated with a compatible stain blocking paint such as Zinsser Bullseye 1-2-3 or Plus version. By overcoating it minimises the risk of the stain bleeding back through in the future. Once the stain blocker is dry, two coats of a Dryvit compatible coating are applied, see Section 10 *Recoating*.

## 7. Removing graffiti and paint

Dependent on the chemical base of the graffiti or paint, it may be difficult to remove using proprietary cleaners without adversely affecting the EWI system. Do not use solvents or solvent-based cleaners such as paint thinner, paint stripper or white spirit as these will damage the Dryvit system.

Some water-based paints may be removed by lightly scrubbing with a soft bristle brush and a strong hand-hot detergent solution. This will not work for oil based paints or sprayed lacquers, and the surface may need to be refinished or coated over, see Section 10 *Recoating*.

If the area is prone to repeated graffiti attack, consideration should be given to the application of an anti-graffiti coating, with a sacrificial clear wax coating. Contact Dryvit UK Ltd for further advice.

## 8. Replacing sealant around doors and windows

Although sealants are not specifically supplied by Dryvit as part of the system they are subject to deterioration over time and if they fail they must be replaced.

Replacement sealant should be sourced from a reputable specialist supplier and the material specification conforms to ISO 11600F/G-25LM or BS 5889 Type A.

Any sealant primers must be compatible with the EWI system. Contact Dryvit UK Ltd and refer to Dryvit Information Sheet GN 001 for further information and guidance.

## 9. Recoating

The system must only be recoated with a compatible Dryvit coating. The use of proprietary masonry paints and coatings is not recommended and can lead to problems with moisture and condensation within the building and contribute towards the early deterioration of the system.

After cleaning the surface to remove any dirt or mildew the system can be overcoated using a compatible Dryvit acrylic or silicone coating, each coating is available in a wide range of colour options:

## 10. Longer term maintenance

Whilst a structure owner can perform general informal visual inspections to detect any obvious problems regular scheduled inspections of the exterior must be carried out by a qualified professional. In most cases visual inspections of the exterior cannot detect water intrusion behind the insulated system, but there are inspection tools and methods, invasive and non-invasive, that can assist in detecting these types of problems or potential problems.

Non-invasive methods can include the use of electronic impedance technology to scan the surface of the wall for the presence of moisture within the building components without the need to cut into the insulation. This is a method that requires surface contact but is not infallible and should only be used in conjunction with other suitable methods of investigation such as moisture meters.

Infra-red thermography is a non-contact colour-code mapping technique used to detect points of heat loss variance on the insulation surface, effectively seeing inside the wall to locate areas of insulation inefficiency.

Invasive methods such as moisture meters utilise the principle of electrical resistance, although they cause a minimum of damage. Thin contact pins up to 100 mm in length can penetrate through the render lamina into the insulation to detect if excessive moisture is present at a specific location. Where further investigation is required water penetration testing to trace water ingress points may be required or more invasive measures. These can include core samples or saw cutting into the lamina/insulation matrix as necessary to investigate potential sources of moisture and to establish the extent of any hidden damage.

Insulation bond or adequacy of mechanical fixing to the substrate can initially be determined visually or by sounding. Where further investigation is required tensile bond testing or anchor pull out from the substrate may be necessary.

Once any evaluation has been conducted a written inspection report detailing any defect problems or maintenance issues will be submitted to the client and recommended repair work needs to be carried out by the original installer or other Dryvit trained contractor.