Kingspan Insulation offers an extensive range of premium performance insulation products for the construction industry. Offering the best thermal performance, Kingspan Kooltherm® K15 Rainscreen Board has been specifically developed for use in rainscreen cladding applications. Kingspan Kooltherm® K15 Rainscreen Board has been successfully tested at the Building Research Establishment (BRE) to BS 8418:1-2002 and, when assessed in accordance with BR 135, it is acceptable for use above 18 metres in accordance with the English, Scottish and Irish Building Regulations. Since it also achieves a Class O/Low Risk fire rating and exhibits less than 5% smoke obscuration when tested to BS 5111, its fire performance makes it best in its class.

Promat is a market leader in passive fire protection and high temperature insulation. The fire protection division offers an extensive range of boards, penetration seals and glazing, designed to provide systems which meet the most stringent requirements of today’s projects. Promat are pleased to offer many of the leading brands in fire protection including SUPALUX®, DURASTEEL®, MASTERBOARD® PROMASEAL® and the PROMATECT® range of products.

EJOT specialises in cold forming and injection moulding and are one of Europe’s largest manufacturers of fastener and anchor systems. This includes specialist product for the Roofing and Cladding, Single Ply Roofing, External-Wall Insulation and Façade markets.

EJOT provides high quality fasteners and a technical service to the Building and Construction Industry.

Please refer to rainscreenworks.ie for BBA / IAB Accreditation.
**Plasterboard**
The internal plasterboard lining protects the external steel frame in the event of fire, contributes to overall acoustic performance and provides a flat, impact resistant surface that will help to maintain an attractive internal appearance throughout the building’s life.

**Ventilated Cavity Barrier**
The passage of fire in the void between a rainscreen system and the face of the building can be prevented by the use of a purpose-made system comprising of a perforated intumescent sheet bonded to a similarly perforated galvanised steel sheet. The rainscreen barrier is screw or rivet fixed to a separate bracket or angle to form a ventilated cavity barrier with 60 minutes fire resistance and is available in 100, 125 and 150 mm widths.

**Insulation**
The use of premium performance insulation in a rainscreen cladding system provides the thermal performance, required by the Building Regulations / Technical Standards, with minimum impact on the footprint of the building.

**Steel, Timber and Concrete Frame**
The use of either a steel, timber or concrete frame will provide support to the rainscreen. When this inner leaf is erected, the result is the building being protected from the elements at an early stage and removing the installation of the rainscreen from the critical path.

**Fasteners and Anchors**
A wide choice of fasteners and anchors are available for a fast and efficient installation. The fixing element may be divided into four specific areas: bracket to substrate, bracket to frame, insulation to substrate and facia panels to frame. System flexibility allows for application to a wide variety of background materials. The range of fasteners and anchors meet this diversity. Full technical information with regard to product performance is an essential element of the design. All required details are easily available on request.
Why Rainscreen Works

It is a common premise of modern engineering that it is far more beneficial to work with nature than try to resist its influences. However, the traditional solution to keeping rainwater out of buildings has been to use the latter concept and provide walls that are fully sealed against the weather by the use of barriers, joints and sealants. Unfortunately the failure of such walls due to material degradation, poor workmanship and unexpected building movements has been far too common an occurrence. Rainscreen cladding offers a solution that utilises the effects of the wind to control rainwater and prevent it entering the building.

The modern concept of rainscreen cladding was developed in Scandinavia during the 1940s and came into widespread use in Europe and Canada in the 1970s. Lightweight rainscreens were developed in the UK in the 1980s with the majority of the earlier projects located in the harsh climatic conditions of Scotland. It is not a new concept and many years of experience have been gained in the development of the relatively easily installed lightweight systems currently available.

Rainscreen cladding offers a relatively simple solution to the problem of keeping rainwater out of buildings and although there are several variations, the principle concepts are:

- The careful design of ventilated cavities that use the pressure effects of the wind to dissipate energy of driven rainwater
- Properly designed drainage paths that collect and direct the water away from the cavity

The concept of overcladding is simple, but to be successful it is essential that a detailed knowledge of the physical principles and materials involved be incorporated into the design details.

The organisations that contribute to rainscreenworks.ie all have extensive experience of rainscreen cladding in practice, and recognise that it is difficult for the specifier to obtain such specialist information from one location. By joining together and forming a focus for such information we aim to provide a readily accessible source of knowledge in Ireland.
Structural Adhesives
Secret fixing of exterior and interior cladding panels is easily achieved using state of the art structural adhesives. They offer long term durability whilst accommodating differential movement caused by varying climatic conditions.

Building Board
The use of a Class O non-combustible building board can provide up to 60 minutes fire protection in timber and metal stud framed constructions. The calcium silicate board is manufactured with selected fibres and fillers. The board is resistant to the effects of moisture, will not physically deteriorate when used in damp or humid conditions and can withstand high temperatures and frequent temperature changes.

Brackets and Profiles
Rainscreen cladding support systems have been developed to service the ever changing face of architecture and the designers demands for more flexible and economical cladding solutions. Modern rainscreen support systems need to maintain aesthetic quality and offer excellent technical performance.

Advanced vertical and horizontal support systems solutions, utilising both mechanical and structural adhesive techniques for concealed and visible construction are available for façades ranging from lightweight high-pressure laminate panels to 70+ kg/m² tiles. Cladding zones from 40 mm to 350 mm can be accommodated.

This versatility provides the designer with an almost infinitive range of façade appearance and layout options, each of which must be safely engineered.

Tape
Weatherproofing insulation can be done by using an adhesive system in the form of tape. The film bonds 100% to the surface of the insulation providing a zero-permeability barrier that moisture cannot penetrate. This adhesive system offers excellent resistance to moisture, UV exposure, and allows application in all weather conditions including cold temperatures.

Structural Adhesives
Secret fixing of exterior and interior cladding panels is easily achieved using state of the art structural adhesives. They offer long term durability whilst accommodating differential movement caused by varying climatic conditions.

Facade
To the majority of people, the only parts of a building they normally see are the internal and external façades. Given that first impressions count it is imperative that the ‘look’ of the building portrays the ‘right’ image. It is with this ‘image’ in mind that makes rainscreen cladding an attractive proposition, the panels can offer a modern or natural look which maintains its aesthetics without the need for continual maintenance.