

POLYROOF TWIN-PACK INSULATION ADHESIVE

TECHNICAL DATA SHEET

Version: 2.0
Dated: 13/05/2022

Introduction

Polyroof Twin Pack Insulation Adhesive is a high foaming rapid curing two component polyurethane adhesive which not only bonds the insulation; but also contains no volatile solvents to meet environmental standards. Once applied, the adhesive reacts to form a permanent polyurethane bond with excellent adhesion and flexibility even at very low temperatures. The adhesive isn't dependant on external factors such as moisture to cure and is capable of being applied at temperatures down to 1°C.

Polyroof Twin Pack Insulation Adhesive is recommended for use in all Polyroof Bonded Specifications. Of specific note is that this is the only adhesive that we recommend for foil-to-foil applications. This includes bonding foil type VCL's such as Polyroof SA Vapour Barrier to Foil faced Polyroof RES insulation (T&G). As the adhesive is twin pack it is extremely fast curing and also it is suitable for low temperature use (down to 1°C).

Product Information



Code	Item	Pack Size	Approx. Pack Coverage
107106	Polyroof Twin-Pack Insulation Adhesive	4 x 1500ml	Up to 45m ²

Polyroof Twin Pack Insulation Adhesive was developed to allow simple, uniform and precise on-site application whilst remaining as environmentally and health and safety conscious as possible.

An extremely versatile adhesive; it can adhere to a wide range of insulation materials, including XPS, EPS, PIR, PUR and stone wool. It is particularly suited for bonding to foil faced insulation boards. These materials can be adhered to the wide variety of substrates encountered such as existing asphalt, bituminous systems and foil faced vapour control layers. Polyroof Twin Pack Insulation Adhesive is the only adhesive suitable for bonding foil to foil applications where there is extremely low vapour permeability. The adhesive cures as a result of an exothermic reaction between the two components which isn't dependent on moisture for the bond to form.

For single ply substrates such as existing TPO, FPO, PVC and EPDM an adhesion test is recommended as additional primers may be required prior to application, contact our technical department for further information prior to installation.

Polyroof Twin Pack Insulation Adhesive is manufactured from bio renewable materials and is VOC and odour free making it the ideal product for sensitive areas of application, where health and safety is of the utmost importance to the client. It is also an ideal adhesive for swift application as the product is rapid curing, and can secure materials in as little as 10 - 15 minutes from application.

Compatible Polyroof Systems

This adhesive is required for foil-to-foil applications (e.g. Polyroof RES Insulation (T&G) to Polyroof SA Vapour Barrier)

Consult Polyroof Technical Services for usage advise.

Technical Data

Characteristic	Value
Chemical Base	Polyurethane
Application Temp.	1 - 30°C
Coverage Rate per 1500ml Bonding PIR or EPS Insulation	Bead size: 6 - 12mm Normal Roof Exposure (300mm centres): Up to 14m ² Roof Perimeters (200mm centres): Up to 9m ²
Coverage Rate per 1500ml Bonding Stone Wool Insulation	Bead size: 12 - 14mm Normal Roof Exposure (250mm centres): Up to 8m ² Roof Perimeters (150mm centres): 6.4m ²
Cure Rate	10 minutes @ 20°C 20 minutes @ 10°C 40 minutes @ 1°C (Adhesive must be stored at room temperature)
Chemical Resistance	Resistant to water, dilute acids, alkalis and aliphatic oils
Viscosity	Part A: 7500 - 12,500cps @ 20°C Part B: 1500 - 2500cps @ 20°C
Solids Content	100%
Colour	Part A: Blue Part B: Yellow Mixed: Green

Application

Application Benefits

Polyroof Twin Pack Insulation Adhesive cartridges are applied using an applicator gun, allowing for easy, precise and rapid installation. The mixing element ensures the two components are thoroughly mixed, removing the possibility of human error and ensures the correct bead size is applied to the deck. As the adhesive is rapid curing it allows for quick installation of insulation

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panels - allowing for waterproofing membranes or liquids to be subsequently applied with minimal delay.

A reaction between the two components produces a foam which has been developed to be low density - to ensure boards aren't lifted when the foaming reaction begins. The foam will spread horizontally to fill and make contact should any undulations be present. The exothermic reaction allows the adhesive to be applied in low temperatures down to 1°C.

Application Guidelines

Important Notes:

- Wind Uplift: Wind uplift calculations are recommended prior to undertaking any roofing project to ensure that the adhesive meets the required performance.
- Adhesion Tests: If the existing substrate is single ply membrane, and adhesion test will be also be required prior to application.
- Please contact Polyroof Technical Services for further guidance

Preparation and Installation

Set-Up Procedure

- Unscrew the plastic cover from the cartridge head and remove the red insert - if you plan on reusing the cartridge, clean the tips to prevent cross contamination when reinserted in the cartridge head.
- Screw on the plastic mixer tube ensuring it is tightly secured.
- Place the cartridge in the applicator gun.

Application

- Ensure the substrate is clean and dry, take care to ensure the roof is free from loose, sharp and foreign materials including oil/grease and other contaminants such as fungal growth. Use anti-fungal wash as required.
- Should the existing substrate be a single ply membrane an adhesion test will be required as a primer may be required prior to application, contact Polyroof technical department for further advice.
- Dispense a small amount of adhesive until a consistent green colour is achieved.
- For PIR or EPS (eg Polyroof RES Insulation): Apply the adhesive in parallel beads 6 - 12mm in size. Beads should be 300mm apart for normal roof exposure or 200mm apart for roof perimeters and critical areas.
- For Stone Wool (eg Rockwool Multi-fix): Apply the adhesive in parallel beads 12 - 14mm in size. Beads should be 200mm apart for normal roof exposure or 150mm apart for roof perimeters and critical areas.
- The insulation boards should be placed immediately into the wet adhesive. The boards will be bonded within 10 minutes and work can continue.
- If the mixed adhesive is left standing in the plastic mixer tube for more than 20 seconds it will thicken and a new mixer tube will be required.

Storage and Handling

Polyroof Twin Pack Insulation Adhesive is packed into 1500ml twin cartridges and packed 4 cartridges per box together with 6 mixer tubes. The adhesive is not classified as hazardous in the meaning of transport and storage regulations. Always store the adhesive indoors in dry conditions above 5°C within the original packaging. For optimum performance store adhesive at 15 to 20°C prior to use, this is imperative when working in conditions below 5°C.

Health and Safety

Safety Data Sheets available on request.

Technical Assistance

For further information, please contact Polyroof Technical Services on 0800 801 890. More information can also be found at www.polyroof.co.uk.