

POLYROOF SINGLE-PACK INSULATION ADHESIVE

TECHNICAL DATA SHEET

Version: 2.0
Dated: 13/05/2022

Introduction

Polyroof Single Pack Insulation Adhesive a cost-effective single component, moisture curing polyurethane adhesive applied from a 22L canister to provide accurate application. The adhesive contains no VOCs and uses non-flammable propellants reducing the risks associated with pressurised canisters. Polyroof Single Pack Insulation Adhesive adheres a wide variety of insulation materials typically found in flat roof construction.

Polyroof Single Pack Insulation Adhesive is only to be used only when specified or when approved by Polyroof Technical Services. WARNING - This single pack adhesive is not suitable for bonding foil to foil insulation boards or VCLs. Polyroof Twin Pack Insulation adhesive must always be used in these circumstances. Consult Polyroof Technical services for further guidance.

Product Information



Code	Item	Pack Size	Approx. Pack Coverage
107112	Polyroof Single-Pack Insulation Adhesive	17kg	Up to 275m ²
107118	Foam Gun for Polyroof Single-Pack Insulation Adhesive	Each	-

Note - higher consumption required for use on uneven surfaces, areas of high exposure and use with Rockwool insulation. Consult Polyroof Technical Services for advice.

Polyroof Single Pack Insulation Adhesive was developed for simple, uniform and accurate application. As the canister is pressurised with non-flammable propellant, it reduces the storage requirements for the adhesive compared with other canister products currently available on the market.

Polyroof Single Pack Insulation Adhesive is extremely versatile; it can adhere a wide range of insulation materials, such as XPS, EPS, PIR, PUR and Stone wool. These materials can then be adhered to the wide variety of substrates encountered such as existing asphalt, bituminous systems and VCL's.

DO NOT USE FOR FOIL-TO-FOIL APPLICATIONS.

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

Compatible Polyroof Systems

Polyroof Single-Pack Insulation Adhesive can be used with the following insulation:

- Polyroof Tissue-Therm Insulation
- Polyroof VIP Insulation
- Rockwool Hardrock Multi-Fix (DD) Insulation

Consult Polyroof Technical Services for usage advise.

Technical Data

Characteristic	Value
Chemical Base	Polyurethane
Application Temp.	5 – 30°C
Coverage Rate per 22L Canister Bonding PIR or EPS Insulation	Bead Size: 20 – 40mm Normal Roof Exposures (300mm centres): Up to 350m ² Roof Perimeters (200mm centres): Up to 210m ²
Coverage Rate per 22L Canister Bonding Stone Wool Insulation	Bead Size: 50mm Normal Roof Exposures (300mm centres): Up to 170m ² Roof Perimeters (200mm centres): Up to 110m ²
Cure Rate	15 minutes @ 20°C 30 minutes @ 10°C 45 minutes @ 5°C Full cure within 24 hours
Chemical Resistance	Resistant to water, dilute acids, alkalis and aliphatic oils
Flammability	No Flash Point
Solids Content	100%
Colour	Amber/White

Application

Application Benefits

Polyroof Single Pack Insulation Adhesive is applied using a spray wand which enables easy, precise and rapid installation. The spray wand ensures consistent bead size when applied to the deck, reducing wastage and ensuring accurate and secure installation. The wand also removes the need for contractors to repeatedly bend over throughout the installation, combined with a long-braided hose, the canister system provides maximum manoeuvrability.

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As the adhesive has a quick cure time, allowing for quick installation of insulation boards – typically half the cure time of poured single component polyurethanes. The adhesive is suitable for adhering insulation down to temperatures of 5°C. This allows for insulation boards to be secured quickly and ready for waterproofing systems to be subsequently applied.

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, an adhesion test will be also be required prior to application.
- This product is not suitable for foil-to-foil applications
- Please contact Polyroof Technical Services for further guidance

Preparation and Installation

Canister Set-Up Procedure

- Shake the canister for 30 seconds prior to set-up.
- Attach the one end of the hose to the spray wand and tighten the nut with a spanner.
- Remove the black cap on the canister valve and attached the hose to the valve, and tighten the nut with a spanner.
- Once both nuts are tightened and secure, open the valve on the top of the canister.
- DO NOT close canister valve until the canister is empty. To do so may cause adhesive to block in the hose. When work is complete turn the black valve clockwise on the back of the spray gun until fully closed. Clean the end of the spray wand with Polyroof Single Pack Insulation Adhesive Cleaning Solvent ensuring that the aperture is clean. Once the canister is empty, the hose to the canister valve can be removed and attached to a fresh canister.
- Begin spraying the adhesive by pulling the trigger on the spray wand, adjust the bead size by turning the black valve on the spray wand – until a bead size of approx. 20-40mm is achieved.
- We would recommend use of a cleaning adapter to allow for simple hose & gun cleaning, please see cleaning & disposal document for further information.

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.
- Prepare the canister for application as above. Please shake canister for 30 seconds before every use, not just at the start of the day.
- Do not apply if rain is imminent, remove all ponded water and allow at least 1 hour drying before applying the adhesive.
- For PIR or EPS (e.g. Polyroof RES Insulation): Apply adhesive in 20 - 40mm wide beads of adhesive at 200mm centres for roof perimeters and critical areas, and 300mm centres for normal roof exposures or in compliance with specific wind uplift calculations for the project in question.
- For Stone Wool (e.g. Rockwool Multi-fix): An increased coverage rate is required. Increase bead size to 50mm wide beads, at 200mm centres for roof perimeters and critical areas and 300mm centres for normal roof exposures
- Place insulation boards directly into the adhesive after 3 – 5 minutes at 20°C, applying pressure to ensure full contact into the adhesive. This becomes even more important when bonding unfaced stone wool insulation due to its weight and porous nature, we would recommend a minimum of 5 minutes at 20°C when bonding stone wool insulation. Please note these times are guidelines and will vary dependent of climatic conditions and adhesive storage temperature. Always ensure the adhesive has not been left exposed for too long and formed a skin before laying the insulation into the adhesive.
- Avoid walking over insulation boards whilst the adhesive cures for the first 15 – 30 minutes.

Storage and Handling

Polyroof single pack insulation adhesive is packed into 22L pressurised canisters. Protect from extremes of temperature in a controlled environment between 15 and 35°C, and away from direct sunlight. Do not stand on a cold concrete floor. Low temperatures can result in irreparable separation of the adhesive. Stored under the correct conditions, in original, unopened containers, the product will have a shelf life of 12 months.

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.