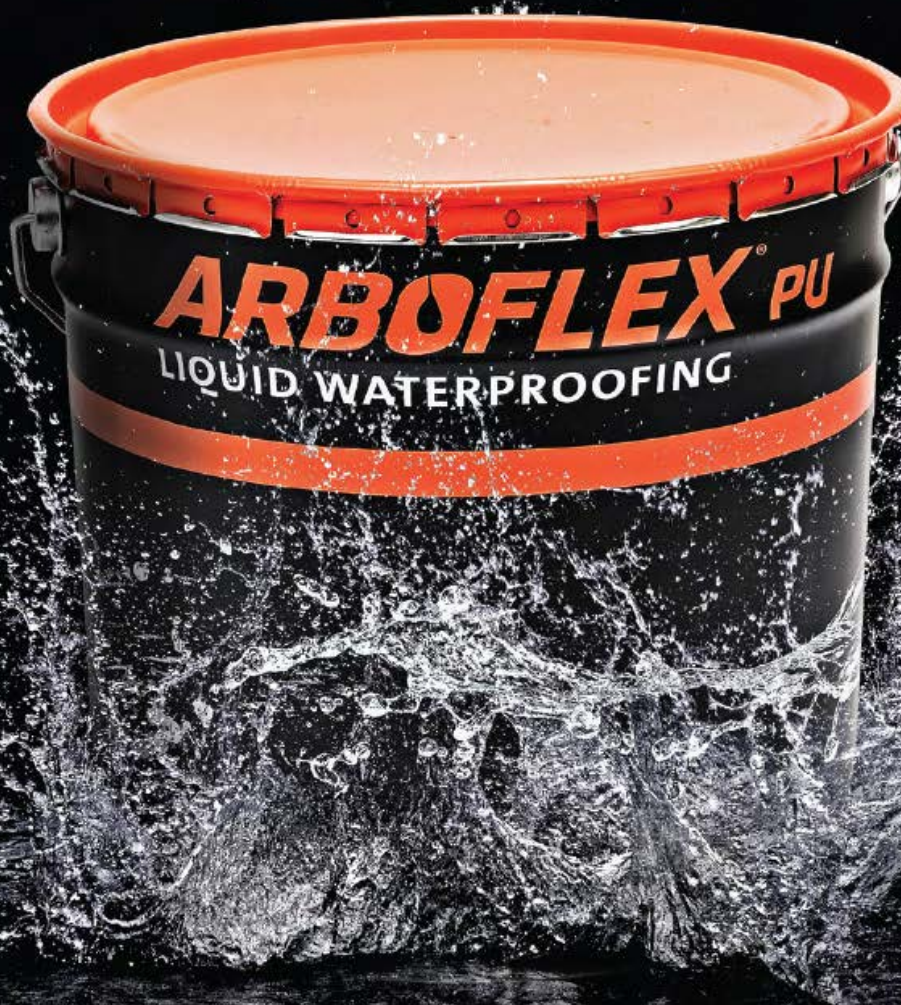


ARBOFLEX[®] PU

Cold Applied Liquid Waterproofing

PRODUCT CATALOGUE



Contents

What is Liquid Waterproofing	4
Application	6
System Build-Ups	7
ARBOFLEX® PU Range	8
Our services	12
Case Studies	14



"We understand the challenges of modern construction, and that's why we've focused on developing ARBOFLEX® PU. It's about seamless application, robust protection and a system that adapts to the complexities of any project"



Allen Coldrake

Director of Sales and Technical Roofing

To deliver truly effective waterproofing, you need products that meet the evolving demands of the market. At CARLISLE®, we understand this. Our commitment to continuous research and development, driven by close collaboration with our technical department, ensures that our roofing systems such as ARBOFLEX® PU liquid waterproofing system sets new standards in performance and application.

ARBOFLEX® PU is a moisture-cured, single-component, glass fibre reinforced polyurethane liquid, engineered for both refurbishment and new build projects. This innovative system offers a seamless, cold-applied solution that excels in complex detailing, challenging access situations, and roof terrace applications.

Our focus on quality and durability is paramount. ARBOFLEX® PU is designed to provide long-lasting protection, with verified properties and comprehensive guarantee packages available. We strive to offer a reliable and efficient waterproofing solution, ensuring that your projects stand the test of time.

What is Liquid Waterproofing?

Liquid waterproofing systems offer a versatile and effective solution for protecting buildings from the elements. Applied as a liquid, these systems form a seamless, durable, and flexible membrane that adheres to a variety of substrates. This adaptability makes them ideal for both new construction and refurbishment projects, particularly for complex detailing and areas where traditional roofing materials may be challenging to install.

Cold applied liquid waterproofing systems offer a versatile and efficient solution for a wide range of waterproofing needs. Unlike traditional methods requiring heat, these systems are applied at ambient temperatures using brushes, rollers, or spray equipment. This eliminates the need for hot work, making them safer, faster, and more cost-effective to install.

Liquid waterproofing systems are available in various formulations, each with its own unique properties and applications. One of the most common and highly used formulation is Polyurethane (PU). Polyurethane systems offer excellent flexibility, durability, and chemical resistance. They are suitable for a wide range of applications, including roofs, balconies, and terraces.

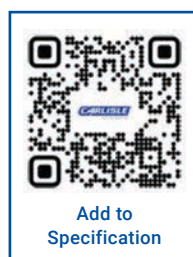


Choosing the Right System:

Selecting the appropriate liquid waterproofing system depends on several factors, including the type of substrate, the intended use of the area, the level of foot traffic, the desired lifespan, and budget considerations. Consulting with a qualified professional is crucial to ensure the correct system is specified and installed.

When to specify ARBOFLEX® PU

ARBOFLEX® PU Liquid Waterproofing is the ideal solution for refurbishing existing roofs, particularly those with intricate detailing, dense rooftop plant installations, or limited access. It excels in roof terrace applications where a laid-to-falls system is required, effectively supporting protective slabs or decking on pedestals. Offering versatility, ARBOFLEX® PU can be applied as a two-coat system for standard applications or a three-coat system for enhanced longevity, seamlessly bonding to the substrate as a direct waterproofing overlay.



Application

New Build

PU liquid waterproofing systems offer several key advantages for flat roofs on a new build. Key benefits include:

Seamless Waterproofing:

- PU liquid systems create a continuous, seamless membrane, eliminating joints and seams that are common weak points in traditional roofing systems. This significantly reduces the risk of leaks.

Flexibility and Durability:

- PU systems are highly elastic, allowing them to accommodate building movements and thermal expansion/contraction without cracking. This results in a long-lasting and durable waterproofing solution. They are also very weather resistant, and many are UV stable.

Adaptability to Complex Details:

- Flat roofs often have intricate details, such as penetrations, upstands, and gutters. Liquid systems easily conform to these complex shapes, ensuring complete waterproofing.



Application Versatility:

- PU liquid systems can be applied to a variety of substrates, including concrete, timber, and metal, making them suitable for diverse new build constructions.

Cold applied systems reduce the risks associated with hot works.

Long Lifespan:

- High-quality PU liquid waterproofing systems can offer a long service life, often exceeding 25 years, providing long-term protection for the building.

New Build suitability:

- Because the systems can be cold applied, this makes them very suitable for new build sites where naked flames and hot works are restricted.

Refurb

When it comes to refurbishing an existing flat roof, PU liquid waterproofing systems offer several significant advantages. Key benefits include:

Overlay Capability:

- One of the most valuable aspects of PU liquid waterproofing is its ability to be applied over existing roof substrates such as timber, bitumen based products, coated metals etc. For any specific substrate compatibility seek clarification from our technical team. This means that, in many cases, the existing roof covering doesn't need to be completely removed. This significantly reduces:
 - Cost to remove existing waterproofing system.
 - Waste disposal.
 - Disruption to building occupants.
- Liquid waterproofing is particularly useful in situations where powering equipment on the roof is difficult or where storage space is limited or unavailable. The contractor only needs to bring the necessary



materials to the site each day, eliminating the need for noisy generators or extensive cabling.

- This overlay capability makes PU liquid systems a cost-effective and efficient solution for extending the lifespan of an aging flat roof.

Seamless Repair:

- Existing roofs often have many areas that have become damaged. PU liquid systems are excellent at sealing all of those damaged areas, by creating a new seamless layer.

Adaptability:

- Existing roofs can have many complex details that have been added over time. ARBOFLEX® PU is excellent at adapting to those details.

Green Roof & PV Systems: Maximising Your Rooftop Potential

ARBOFLEX® PU liquid waterproofing provides the essential, durable foundation for both green roof installations and integrated PV (photovoltaic) systems. By ensuring superior waterproofing beneath these systems, we help maximize the lifespan and efficiency of your entire roof assembly, allowing you to harness the benefits of renewable energy and future-proof design simultaneously.

Green Roofs

ARBOFLEX® PU provides robust, long-lasting support for all types of green roof installations. We offer a complete green roof system to include both extensive and intensive system and accessories such as drainage elements, ensuring a seamless and high-performance solution for your living roof.

Types of green roofs

There are several types of green roofs, each with its own unique characteristics and benefits. Here are some of the most common types:

Extensive green roofs:

These are the most common type of green roofs, and they are usually lightweight and require minimal maintenance. They feature a shallow layer of soil and are planted with drought-resistant sedum, grasses, or herbs. CARLISLE® extensive component green roof system consists of multiple layers including drainage, filter, substrate and sedum/ wild flower mat.



Intensive green roofs:

These are more like traditional gardens and require a deeper soil layer to support a wider range of plant species. They can support trees, shrubs, and even vegetable gardens. intensive component. CARLISLE® green roof system consists of multiple layers including drainage, filter, substrate and a wide range of landscaping options depending on the substrate depth.

Modular green roofs:

These consist of pre-grown vegetation modules that can be easily installed on the roof, making them a quick and easy way to create a green roof.

PV Systems

ARBOFLEX® PU system provides a robust, seamless waterproofing foundation for integrated PV and Green Roof installations, making it suitable for both new build and refurb projects.

This synergy delivers powerful performance and future-oriented advantages.

Optimised PV Efficiency: The green roof acts as a natural heat sink, preserving cooler ambient rooftop temperatures. This cooling effect prevents PV modules from overheating, ensuring maximum solar energy generation and optimal output.



By allowing the entire area to qualify as a green roof, the system maximizes its benefit. Focusing the vegetation on biodiversity and using native species seed mixes directly contributes to securing further BREEAM credit rating achievements.

System Build-Ups

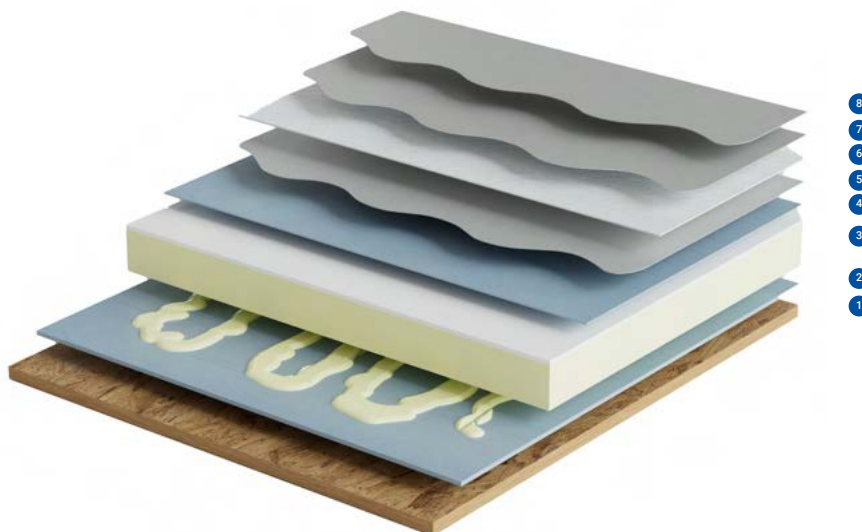
Cold Roof

- 1 Ply/OSB
- 2 ARBOFLEX® PU Liquid Waterproofing
- 3 ARBOFLEX® 225 gsm Matt
- 4 ARBOFLEX® PU Liquid Waterproofing
- 5 ARBOFLEX® PU UV PROTECT



Warm Roof

- 1 ALUTRIX® Vapour Barrier Membrane
- 2 Insulation adhesive
- 3 CARLISLE® Insulation
- 4 ARBOFLEX® Liquid Carrier Membrane
- 5 ARBOFLEX® PU Liquid Waterproofing
- 6 ARBOFLEX® 225 gsm Matt
- 7 ARBOFLEX® PU Liquid Waterproofing
- 8 ARBOFLEX® PU UV PROTECT



Overlay*

- 1 ARBOFLEX® Carrier Membrane
- 2 ARBOFLEX® PU Liquid Waterproofing
- 3 ARBOFLEX® 225 gsm Matt
- 4 ARBOFLEX® PU Liquid Waterproofing
- 5 ARBOFLEX® PU UV PROTECT



* Can be overlaid over bituminous membranes, felt, asphalt and PVC single ply membrane. For any specific substrate compatibility seek clarification from our technical team.



ARBOFLEX[®] PU is a single component liquid made from pure polyurethane which, once cured, forms a seamless elastic membrane without any joints. The material properties of ARBOFLEX[®] PU enable it to be air tight and waterproof on a range of substrates.



ARBOFLEX[®] PU Advantage:



Seamless waterproofing: Creates a monolithic, watertight membrane.



Versatile application: Suitable for various roof configurations, including green roofs and terraces.



Rapid installation: Improves project efficiency and reduces labor costs.



Durability: Offers long-term performance and resistance to weathering.



Future-ready: Contributes to long-term building performance through its use in green roof systems.



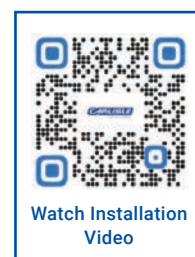
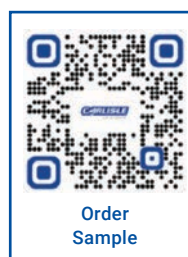
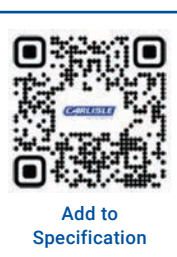
Quality assurance: Supported by advanced testing methods and manufacturer expertise.



Technical support: Comprehensive support from Carlisle Construction Materials.



Cost-effective: Efficient supply chain and early procurement for cost control.



Product Range

ARBOFLEX® Liquid Carrier Membrane



ARBOFLEX® Liquid Carrier Membrane is a polyester reinforced roofing base layer, saturated and coated with a high quality SBS (Styrene-Butadiene-Styrene) modified bitumen. The membrane is protected with a composite aluminium foil and an integral glass-fibre mat on its upper layer, whilst the bottom layer features a self adhesive compound coating.

It is designed to use as a carrier membrane with ARBOFLEX® PU liquid waterproofing and should be used as part of a multi-layer built-up roofing system. Roll size: 33m long , 1m wide.

Key Benefits:

- Cold-applied, self-adhesive application
- Ideal for flame-free installations
- Easy-peel removable film
- Tough polyester reinforcement, providing additional dimensional stability and mechanical strength
- Good resistance to foot marking
- Excellent low temperature flexibility at -15°C
- Compatible with ARBOFLEX® PU liquid waterproofing
- Manufactured in accordance with EN 13707 + A2:2009

European Standards and testing method

ARBOFLEX® PU PRIMER



ARBOFLEX® PU Primer is a single-component, low viscosity primer based on synthetic rubber and resins. Specifically designed to improve the adhesion and surface levelling of substrates before the application of ARBOFLEX® PU liquid waterproofing.

Key Benefits:

- Superior Adhesion & Surface Preparation: Improves bonding and levels porous surfaces for optimal ARBOFLEX® PU application.
- Versatile & Repair-Friendly: Suitable for concrete, mortar, plywood and ideal for repairs.

Available in 5L tins

ARBOFLEX® PU MATTING



ARBOFLEX® PU Matt is a 225 GSM reinforcing mesh specifically designed to significantly increase the adhesion and overall strength of ARBOFLEX® PU continuous waterproofing membranes, even on concrete or mortar substrates with residual moisture. It is ideal for detail work and reinforcing critical areas.

Key Benefits:

- Improves the bond and structural integrity of ARBOFLEX® PU systems.
- Reinforces critical areas and ideal for upstands, outlets, fissures, expansion joints, active cracks and insulation joints.
- Increases adhesion even on concrete or mortar with residual moisture.
- Used across all field areas and for bonding different materials.

ARBOFLEX® PU UV PROTECT



ARBOFLEX® PU UV Protect is a high-performance, single-component aliphatic resin specifically designed to provide long-lasting UV protection for ARBOFLEX® PU waterproofing membranes on flat, sloped roofs, terraces and balconies subject to light foot or maintenance traffic. This easy-to-apply coating forms a flexible, seamless layer with a satin finish, enhancing the durability and extending the lifespan of your ARBOFLEX® PU system.

Key Benefits:

- Superior UV Protection: Aliphatic resin prevents degradation of ARBOFLEX® PU membranes.
- Single Component & Easy Application: Ready-to-use, applied by brush or roller.
- Flexible & Seamless: Accommodates movement without cracking.
- Excellent Adhesion & Durability: Bonds strongly, resisting abrasion, stress, and weathering.
- Satin Finish: Provides an attractive, low-sheen appearance.
- Easy to Maintain: Continuous, non-porous surface is simple to clean.
- Fast Drying: Tack-free in approximately 5 minutes for overcoating.

ARBOFLEX® PU TOP COAT



ARBOFLEX® PU TOP COAT 2C is a two-component aliphatic polyurethane resin engineered for the ultimate treatment, decoration, and protection of flooring. This top coat cures to form a hard, strong, continuous film with a high-gloss finish and excellent adhesion. Its superior mechanical properties deliver outstanding resistance to abrasion and stress, making it impervious to weathering, extreme temperatures, and UV radiation. Suitable as a protective coating on traffic decks, it ensures long-term durability and aesthetic appeal. It's available in metal tins, with the 4.3 kg + 0.7 kg pack size currently offered in neutral and grey.

Key Benefits:

- Provides a seamless, hard-wearing surface for industrial and commercial floors, and robust protection for car parks and walkways, effectively withstanding heavy use.
- Superior UV Protection for Roofing: Acts as a powerful shield for ARBOFLEX® PU membranes on roofs, terraces, and balconies, preventing degradation and extending the lifespan of your waterproofing.



ARBOFLEX® PU THICKENER



ARBOFLEX® PU Thickener is a polymeric thickener, developed specifically as a liquid additive for the polyurethane liquid membrane ARBOFLEX® PU to prevent sagging while drying. For use on vertical or sloped surfaces, providing thixotropic properties.

ARBOFLEX® PU Thickener is a specially developed polymeric additive for the ARBOFLEX® PU liquid membrane. It provides thixotropic properties, preventing sagging while drying and ensuring optimal application on vertical or sloped surfaces.

Key Benefits:

- Prevents sagging of ARBOFLEX® PU on vertical and sloped surfaces.
- Provides thixotropic properties for easier and more precise application.
- Designed for seamless integration with the ARBOFLEX® PU liquid membrane.

Available in a 1L can.

ARBOFLEX® PU ACCELERATOR



ARBOFLEX® PU Accelerator accelerates drying times even in low temperatures and enhances the overall physical and mechanical properties of the cured membrane.

Key Benefits:

- Bubble-Free: Eliminates defects and air bubbles.
- Rapid Drying: Significantly reduces drying times.
- Faster Installation: Speeds up the application process.

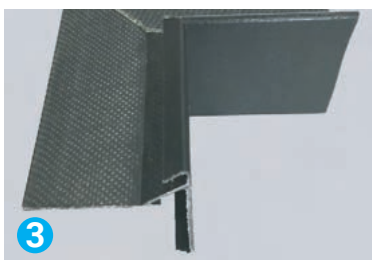
ARBOFLEX® PU TRIMS



1



2



3



4

- 1 NON DRIP EDGE TRIM
- 2 DRIP EDGE TRIM
- 3 NON DRIP CORNER
- 4 DRIP CORNER

Our services

Advice and planning

- Individual consultancy appointments
- Technical advice for new builds and renovations
- Tender documents
- Drafting of specifications
- CAD drawings for individual connecting areas or roof superstructures

Calculations

- Wind-uplift calculations
- Drainage calculations
- Cost estimates
- U Value calculations

On-site service

- Roof condition survey with report
- Regular site inspections
- Roof completion report
- Heat loss detection imagery

Delivery

- Delivery to the location of your choice, even direct to the construction site
- Provision of unloading facilities on demand
- Free delivery may apply on certain orders, subject to Terms and Conditions
- On-time deliveries at fixed times are possible on request

Safety

- Production certified ISO 9001 and ISO 14001
- Comprehensive certification and test records
- Extended tests carried out on our in-house test laboratories

Guarantee

A range of market leading guarantee options available. Duration is dependent on the choice of system.



Regional roots, global network

The CARLISLE® CM Europe Group brings together decades of experience of European rubber producers under one roof. It is part of the listed US group CARLISLE® Companies Incorporated and can look back on many years of tradition.

As an established specialist in high-quality technical elastomer products for flat roofs, façades and the waterproofing of buildings, we are always looking ahead. With our dynamic workforce, we do what we can every day to inspire our customers – with the best products, the best advice and the best training.

We give our customers the knowledge they need to carry out their projects properly and thus successfully. Only a manufacturer understands its current products and the ways they can be used in the future.

For years, we have intensively trained craftsmen so that they can achieve the very best build quality. We have significantly expanded our training capability in our CARLISLE® ACADEMY and we can offer tailor-made training to installers, retailers, architects and planners. Success starts in the CARLISLE® ACADEMY.

Locations

Europe

- 1 | Hamburg | Germany**
(European Head Office and Production)
- 2 | Waltershausen | Germany**
(Production)
- 3 | Weesp | The Netherlands**
(Production)
- 4 | Kampen | The Netherlands**
(Production and Administration)
- 5 | Kirkby-in-Ashfield | Great Britain**
(Production and Administration)
- 6 | Baia Mare | Romania**
(Production)

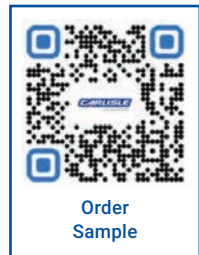
America

- 7 | Scottsdale | USA**
(Headquarters of CARLISLE® Companies Inc.)
- 8 | Carlisle | USA**
(Headquarters of CARLISLE® Construction Materials)

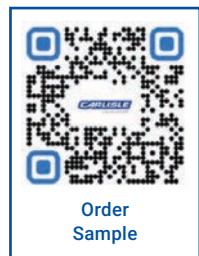


Case Studies

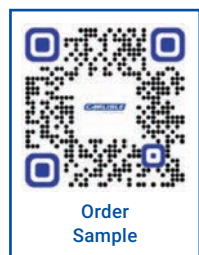
V&A MUSEUM | LONDON



BFI | LONDON



PARK AVENUE | NEPTUNE WHARF





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