ROOFING

Mapei systems and solutions
for waterproofing roofs

MAPEI®

MAPEI®

**MAPEI PRODUCTS
FOR WATERPROOFING
AND PROTECTING ROOFS.
SOUND AND PROTECTED ROOFS.**

Mapei roofs
Waterproofing systems and solutions

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From **Mapei** research, certified quality

Mapei's Research & Development sector is heavily committed to offering highly versatile products for all your protection requirements. A range that integrates conventional needs, such as reliability and building integrity, with the most innovative requirements and expectations of clients.

Mapei roofing products and solutions allow the desired results to be achieved in terms of **waterproofing** and **protection for roofs** against atmospheric aggression and stresses (mechanical, thermal and chemical). At the same time, they provide a guarantee of durability, quality and environmental sustainability for the constructions themselves.

A dual role with performance properties testified by numerous certifications and markings and the severe testing regimes the products are subjected to. And in the roofing sector too, **Mapei**'s approach is based on **rigorous testing** and the value of experience.

Tiled surfaces

Cementitious structures

Bituminous membranes

Metal roofs

Mapei
roofing membranes

The line of products for waterproofing roofs, an **exclusive of the Mapei laboratories**, is made up of **water-based liquid membranes** free of solvents and VOC (volatile organic compounds) and **coloured and transparent polyurethane membranes**.

A complete range of **ready-to-use**, **rapid-drying products that are simple and quick to apply and suitable for use by anybody**.

Ideal for numerous and different types of substrates, such as screeds and cementitious substrates, old flooring, bituminous membranes and metal, **Mapei roofing membranes** can be used to carry out waterproofing work on both **new builds and existing structures**.

Also, these membranes are extremely versatile and can be applied by trowel, roller or spray.

Product range

AQUAFLEX ROOF

Ready-to-use, fibre-filled, **elastic, liquid acrylic membrane**, for seamless waterproofing in external environments.

CE EN 1504-2

IN COMPLIANCE WITH EUROPEAN STANDARD
EN 1504-2 (H)
PRINCIPLES
PI-MC-IR
SURFACE PROTECTION SYSTEMS FOR CONCRETE

AQUAFLEX ROOF HR

Fibre-filled, liquid acrylic membrane in water emulsion with high reflectance and thermal emissivity with a solar reflectance index (SRI) of 105.

CE EN 1504-2

IN COMPLIANCE WITH EUROPEAN STANDARD
EN 1504-2 (H)
PRINCIPLES
PI-MC-IR
SURFACE PROTECTION SYSTEMS FOR CONCRETE

SRI 105

PURTOP EASY

One-component, elastic polyurethane membrane with a coloured finish for waterproofing new and existing balconies, terraces, roofs and surfaces open to foot traffic.

CE EN 14891

IN COMPLIANCE WITH EUROPEAN STANDARD
EN 14891
RM02P
LIQUID-APPLIED WATER IMPERMEABLE PRODUCTS

CE EN 1504-2

IN COMPLIANCE WITH EUROPEAN STANDARD
EN 1504-2 (H)
PRINCIPLES
PI-MC-IR
SURFACE PROTECTION SYSTEMS FOR CONCRETE

Advantages of Mapei roofing membranes

Mapei roofing products have important characteristics such as **excellent workability, durability of the product once applied, elasticity when subjected to stresses and loads typically found in roofs, rapid-drying properties and resistance to UV rays and standing water**. Also, Mapei roofing membranes come with important **markings and certification**, such as EN 1504-2 and EAD 030350-00-0402 (former ETAG 005), and for their fire resistance and solar reflectance properties.

WATERPROOF
BARRIER

RAPID-DRYING
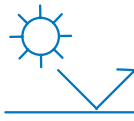
EASY TO USE

PERFECT
ADHESION

EXCELLENT
ELASTICITY

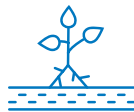APPLICABLE ON A
VARIETY OF SUBSTRATES

SUITABLE FOR
FOOT TRAFFIC

SOLAR
REFLECTANCE

FIRE-RESISTANT
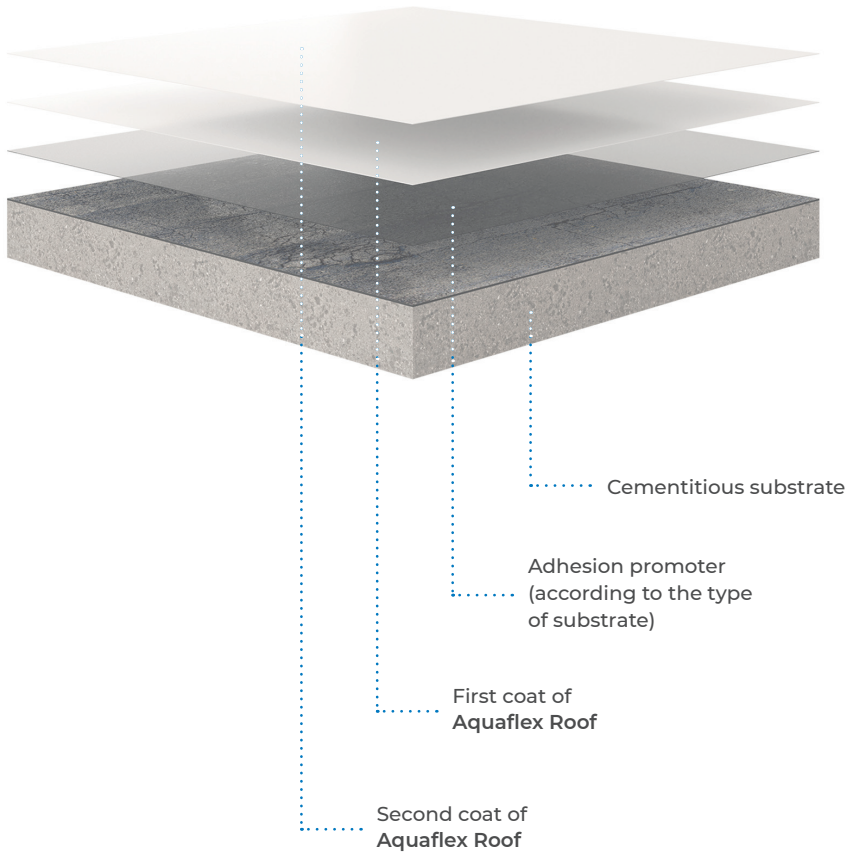
CERTIFIED
PRODUCTS

RESISTANT
TO ROOT
PENETRATION

RESISTANT
TO STANDING
WATER

Waterproofing
systems

System for waterproofing tiled roofs or roofs with a cementitious substrate

Cementitious substrate

Adhesion promoter (according to the type of substrate)

First coat of **Aquaflex Roof**

Second coat of **Aquaflex Roof**

1. Preparation of the substrate

Substrates, whether new or old, mineral-based or tiled, must be solid, clean, dry, consistent, well-bonded and free of all traces of oil, grease, old paint, rust, mould and any other material or substance that could affect adhesion.
Refer to the **Aquaflex Roof** technical data sheet for information on how to prepare substrates correctly.
After preparing the substrate, apply the adhesion promoter.

- **Mineral-based substrates:** apply a coat of **Aquaflex Roof** diluted 10% with water.
- **Tiled substrates:** apply the primer **Eco Prim Grip Plus**.

2. Application of the product

The product is supplied ready to use: it is recommended, however, to mix it well so that it is perfectly blended. **Aquaflex Roof** must be applied with a long-haired roller, a brush or by airless spray. Apply two coats of **Aquaflex Roof** with a dry thickness of around 0.4-0.5 mm each. The total dry thickness of **Aquaflex Roof** must never be less than 0.8-1 mm for a consumption rate of at least 2 kg/m².
If there are **micro-cracks** in the substrate, embed **Mapetex 50** non-woven polypropylene fabric between the two coats of **Aquaflex Roof**.

Waterproofing
systems

High-reflectance waterproofing system for roofs with a bituminous membrane

Bituminous membrane
substrate

Adhesion promoter
Aquaflex Primer

First coat of
Aquaflex Roof HR

Second coat of
Aquaflex Roof HR
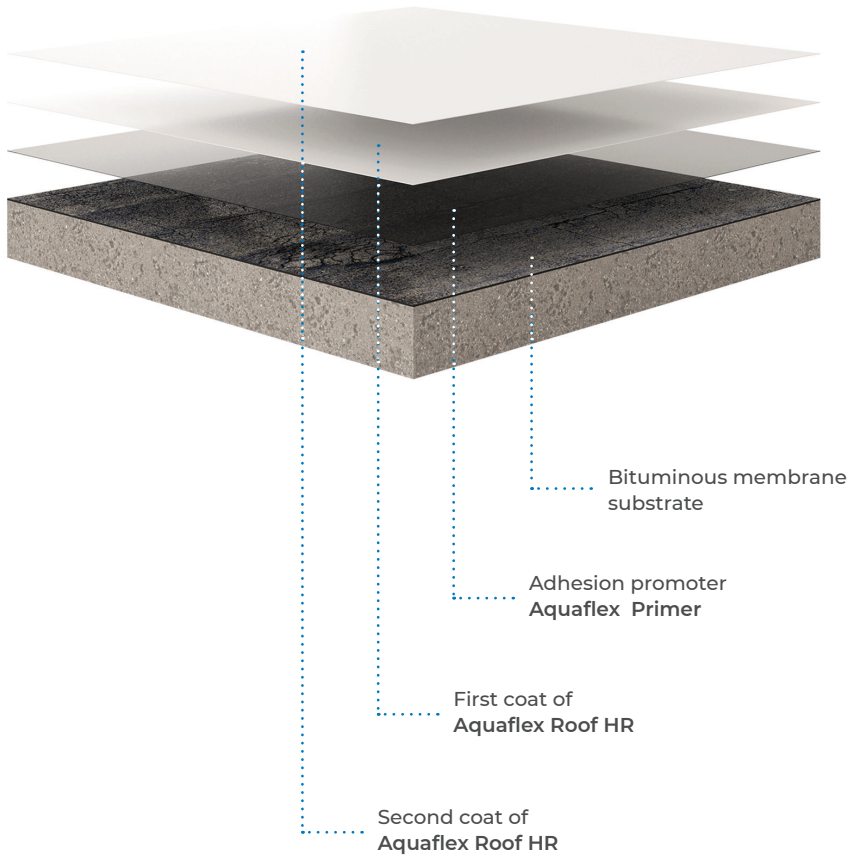
1. Preparation of the substrate

Carefully clean the existing bituminous membrane to provide a clean, dry substrate. Inspect the membrane and repair any areas that appear damaged such as blisters, tears and detached areas. Apply **Aquaflex Primer** with a brush, roller or by airless spray.
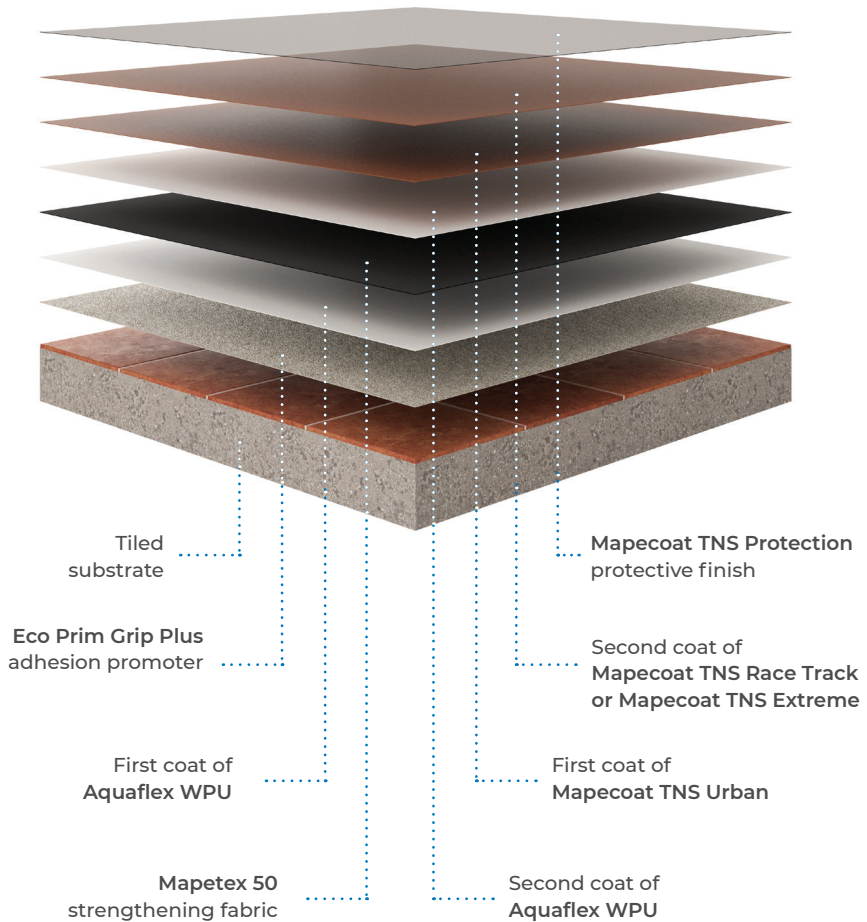
2. Application of the product

Aquaflex Roof HR must be applied with a long-haired roller, brush or by airless spray in two even coats with a dry thickness of around 0.4 – 0.5 mm each. Wait until the first coat is dry before applying the next coat. Apply the second coat so that it criss-crosses the previous coat. The total dry thickness of **Aquaflex Roof HR** must never be less than 0.8-1 mm for a consumption rate of around 0.5 kg/m² on smooth membranes and around 0.9 kg/m² on slate-chip membranes.

Waterproofing
systems

Waterproofing system suitable for foot traffic for roofs with a bituminous membrane, tiled roofs and roofs with a mineral-based substrate

Tiled substrate

Eco Prim Grip Plus adhesion promoter

First coat of **Aquaflex WPU**

Mapetex 50 strengthening fabric

Mapecoat TNS Protection protective finish

Second coat of **Mapecoat TNS Race Track or Mapecoat TNS Extreme**

First coat of **Mapecoat TNS Urban**

Second coat of **Aquaflex WPU**

1. Preparation of the substrate

Substrates, whether new or old, mineral-based or tiled, must be solid, clean, dry, consistent, well-bonded and free of all traces of oil, grease, old paint, rust, mould and any other material or substance that could affect adhesion.
Refer to the **Aquaflex WPU** technical data sheet for full information on how to prepare substrates correctly and for the most suitable adhesion promoter.

2. Application of the product

After carefully preparing and then priming the substrate, apply a coat of **Aquaflex WPU** with a long-haired roller, brush or suitable airless spray pump. Layers with increasing durability may be formed by applying **Aquaflex WPU** in different thicknesses and at different consumption rates: for further details please refer to the table on the product technical data sheet.
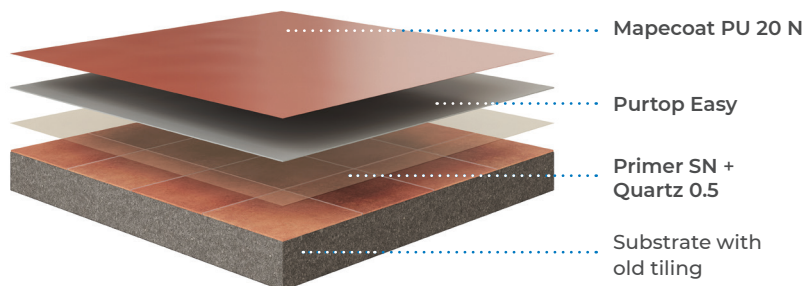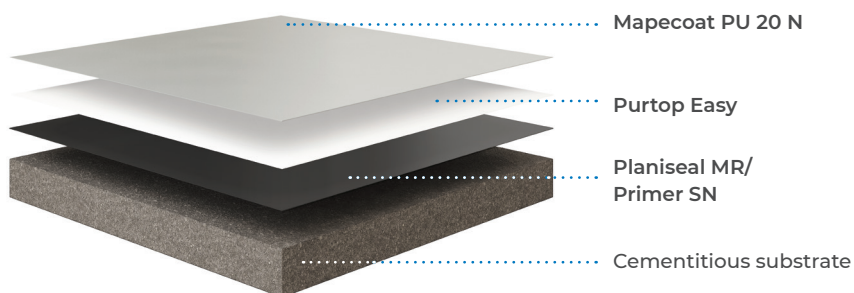With reference to the example layout, spread an abundant coat of the product and, while applying **Aquaflex WPU**, immediately lay **Mapetex 50** on the surface and press it down lightly with a flat trowel or spiked roller to make sure it is perfectly wetted. When this layer is completely dry, apply the next coat of **Aquaflex WPU** so that it completely covers the **Mapetex 50**. For this system the total thickness is 0.8-1 mm and the consumption rate is 1.6 kg/m².
Aquaflex WPU may be made suitable for foot traffic by applying a specific, solvent-free finishing cycle consisting of **Mapecoat TNS Race Track** or **Mapecoat TNS Extreme** and **Mapecoat TNS Protection**.
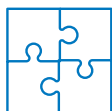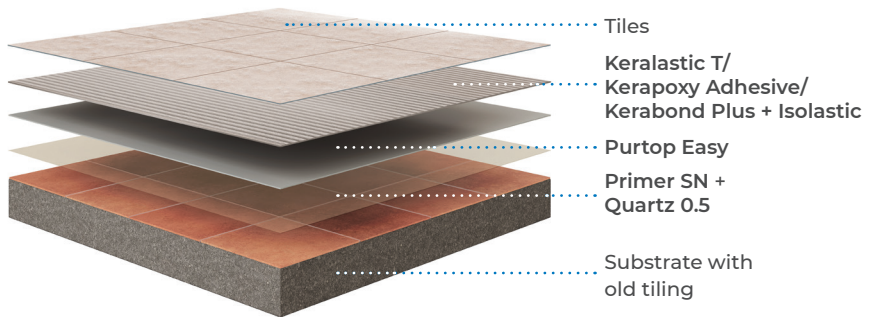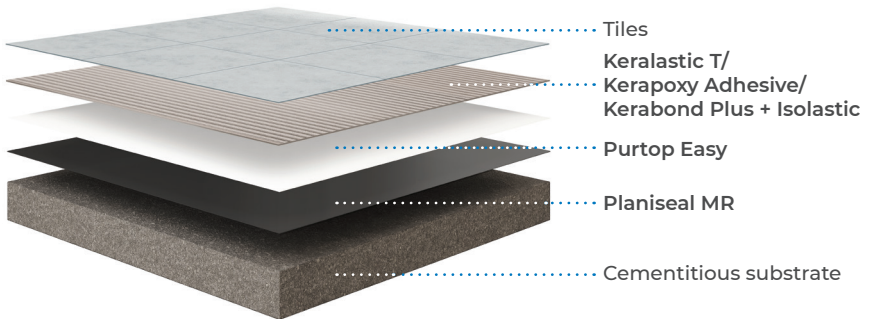
Polyurethane
waterproofing system
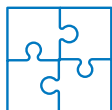
Exposed polyurethane waterproofing system for new and existing roofs

Mapecoat PU 20 N

Purtop Easy

Planiseal MR/
Primer SN

Cementitious substrate

Mapecoat PU 20 N

Purtop Easy

Primer SN +
Quartz 0.5

Substrate with
old tiling

Polyurethane waterproofing system for new and existing roofs before installing a final coating

- Tiles
- Keralastic T/ Kerapoxy Adhesive/ Kerabond Plus + Isolastic
- Purtop Easy
- Planiseal MR
- Cementitious substrate

- Tiles
- Keralastic T/ Kerapoxy Adhesive/ Kerabond Plus + Isolastic
- Purtop Easy
- Primer SN + Quartz 0.5
- Substrate with old tiling

Polyurethane **waterproofing** system

1. Preparation of the substrate

After checking and then cleaning the substrate the waterproofing system is to be applied on, the surface needs to be treated with a suitable primer. Which primer to use depends on the nature of the substrate itself.

Cementitious substrates	Old bituminous membranes	Existing tiles
Primer SN Primer PU Fast Primer EP4 Fast	**Mapecoat I 600 W**	**Primer SN**

2. Application of the product

Once the primer has cured, apply two coats of **Purtop Easy** with a trowel or roller and lay on **Mapetex FG** glass fibre mesh so it becomes embedded in the membrane.

Alternatively, by admixing the membrane with **Purtop ADY**, only one coat will be required. The final thickness should never be less than 1.2 mm.

Apply **Mapecoat PU 20 N** coloured finish within 24-48 hours. If a non-slip finish is required, add **Primer EPW** and two coats of **Mapecoat TNS Race Track** or **Mapecoat TNS Extreme**.

3. Painting and coating

If a non-slip finish or a more attractive, **coloured finish** that remains stable over time is required, coat **Purtop Easy** within 24-48 hours of application with **Primer EPW** and two coats of **Mapecoat TNS Race Track** or **Mapecoat TNS Extreme**.

If **ceramic tiling** needs to be installed on **Purtop Easy**, use **Keralastic T** epoxy-polyurethane adhesive or **Kerapoxy Adhesive** epoxy adhesive. As an alternative, use **Kerabond Plus** cementitious adhesive mixed with neat **Isolastic**. When using **Kerabond Plus** cementitious adhesive, apply a thin coat of **Purtop Easy** over the dry **Purtop Easy** membrane and broadcast the surface while still wet with **Quartz 0.5**.

Projects completed
with Mapei roofs

EVERYTHING'S **OK**
WITH **MAPEI**

MAPEI®