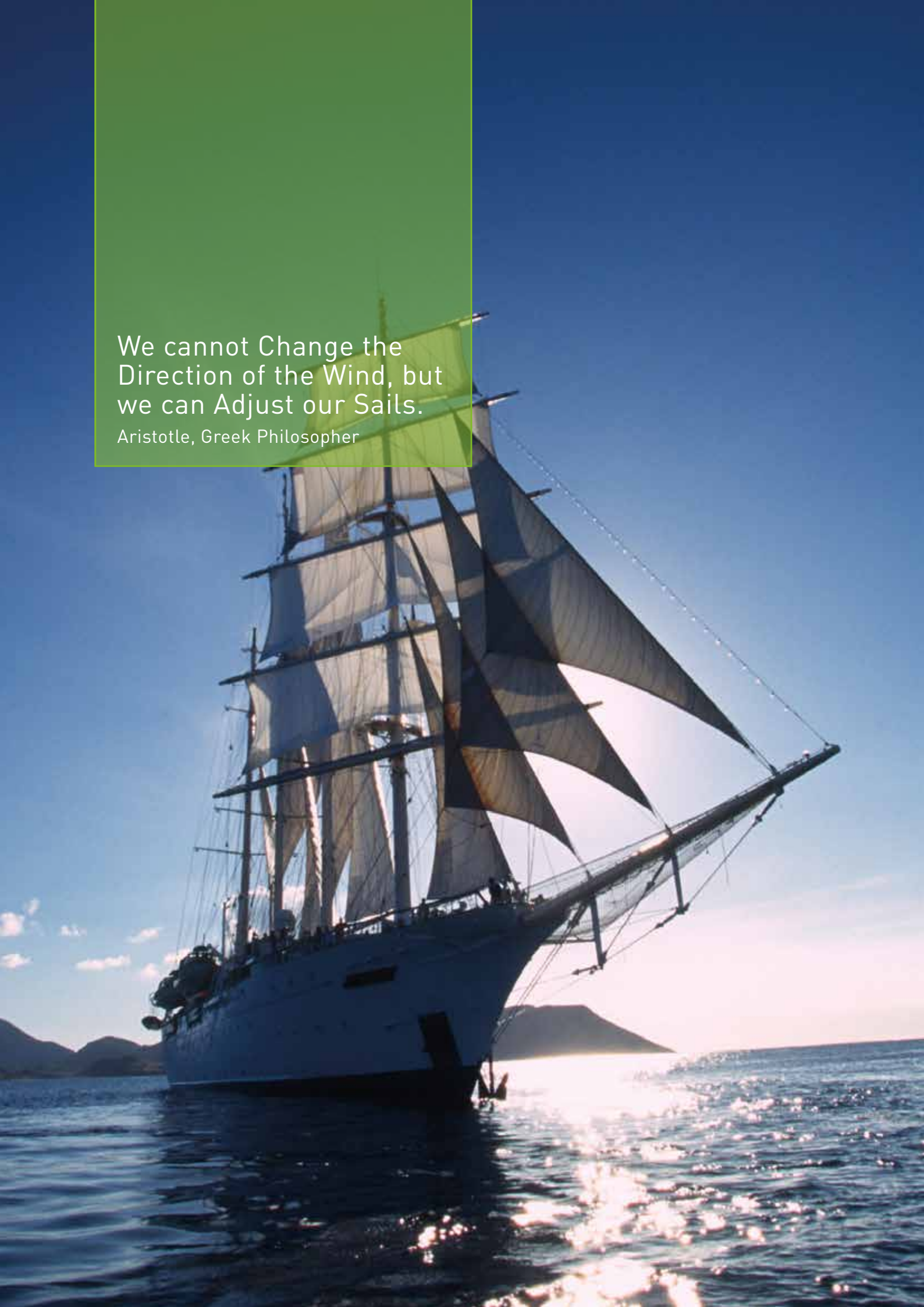
WestWood®
Qualität + Erfahrung

# The Waterproofing and Surfacing Company


We cannot Change the Direction of the Wind, but we can Adjust our Sails.
Aristotle, Greek Philosopher

The Waterproofing and Surfacing Company

# WestWood Liquid Technologies Limited

**We Support you** With WestWood UK you have a professional and loyal partner to support you when it comes to Liquid Waterproofing and Surfacing Systems. Our aim is to provide you with superior, lasting and reliable solutions that we develop with enthusiasm and motivation, then put into practice in conjunction with our customers and suppliers.

**Quality & Experience** PMMA resins have been used as Waterproofing and Surfacing Systems in structural refurbishment for more than 30 years. The high-quality catalysed resins produced by WestWood GmbH in Petershagen, Germany, are state of the art.

**Exchange of Know-How** Thanks to our flexible and versatile waterproofing products, we will find a professional and efficient solution for your construction and refurbishment project, even for demanding requirements. Our advisers possess extensive know-how with regard to waterproofing and are familiar with the application options for our products. We are happy to share this knowledge with you and will advise you on site. Together we will work out possible solutions and support you actively during the implementation phase of your project.

**By Professionals for Professionals** Without exception our systems are installed by qualified and experienced contractors. A fully functional and durable Waterproofing System is only achieved if it is installed correctly. That is why we provide contractors with thorough training, involving both theory and practice.

What Makes Us Tick

# Our Philosophy


Proven Quality &
long Years of Experience

# Production, Research & Development

**History & Development** Westwood was founded in Petershagen (Germany) in 1999 and is now an internationally operating company focusing on liquid-resin technology. Originally the founders had decided to set up a business to manufacture liquid-resin systems with their own research, development and direct sales. Since then WestWood has established itself as a pioneer and supplier of modern PMMA-based surfacing technology. Outside Germany - in Switzerland, Austria, UK, USA, BENELUX and Italy - WestWood - operates through subsidiaries or agencies and has a total of 70 employees. The Swiss subsidiary was set up in 2009.


**Tried and Tested Production** At present WestWood manufactures several thousand tonnes of PMMA resins at production facilities covering an area of over 4000 m². Raw materials, production processes and finished products are constantly subject to comprehensive quality controls. Before their market launch, new products and systems undergo intensive tests and practical trials carried out by experienced contractors. Naturally all our Waterproofing and Surfacing Systems have been awarded test certificates.

**Research & Development** State-of-the art technical equipment and the best possible test facilities help the company with its continuous developments. The work to optimise our existing products and to develop new and innovative waterproofing solutions is ongoing.

# PMMA-Based Waterproofing and Surfacing Systems

Polymethyl methacrylate

# Rapid · Reliable · Durable

**Attractive Material** Several decades of experience in development and application have been incorporated in every product. Rapid cure times and product durability have made outstanding solutions possible, both in terms of technology and economic efficiency.

- They can be applied in almost any weather conditions
- They function perfectly, even at low temperatures and in high humidity
- The curing process is problem-free and the products display good inter-layer adhesion

The success of PMMA is based on the following:

**Speed** Highly reactive PMMA resins are fully cured in just 30 minutes or so. The individual layers are immediately ready for application of the next coat or for use. It takes just a single day to refurbish a balcony, for instance, and a ramp can be reopened to vehicle and pedestrian traffic in a few hours.

**Security** A Liquid Waterproofing System adapts itself perfectly to the surface, which means that it will also seal complex details and upstands to prevent water ingress and sub-surface migration. It bridges movements in the substrate.

**Durability** In terms of their chemical structure, PMMA resins are elastic, free from plasticisers and consequently lastingly extensible. According to the European Technical Approval (ETA), the service life of the roof waterproofing system is classified in the highest category (service life > 25 years).

# BALCONY.
Terraces
Balconies
Access Galleries
Stairways

# Decorative · Value-Preserving · Individual

**The Task** The refurbishment of balconies presents a challenge, in terms of both technology and design. Various upstands are found within an extremely confined area, and there are different substrate materials that have to be waterproofed. Since the balcony is the "extended living room", it is important to fulfil the individual requirements of the building-owners with regards to the colour and shape of the surface design.

**Attractive Appearance** The design options are as varied as individual tastes. A wide range of colours, toppings and shapes make it possible to achieve the desired finish. Even unusual designs, such as a ceramic-tile look or logos, can be implemented. In addition to their visual effects, toppings also deliver the required non-slip properties.

**Low Build Height** Liquid resins are used primarily for renovations. Thanks to their low build height of approx. 5 mm and their good adhesion to an extensive range of materials, including concrete, mastic asphalt, screed, ceramic tiles, timber, metal and plastics, they are also the ideal systems for subsequent installation.

**Preservation while minimising Costs** The Weplus 251 Vapour Release Mesh offers a reliable solution, even for damp substrates. The prefabricated mesh decouples the Waterproofing System from the substrate. That is why the lower surface has a pimpled finish which allows the damp (vapour) rising from the substrate to escape. Consequently existing layers can be left in place, thereby saving costly removal.

Point-load resistant

Easy maintenance

UV and weather resistant

Non-slip

# PARKING.
Multi-Storey
Underground
Ramps
Entrances and Exits

# Heavy Duty · Crack-Bridging · Resistant

**The Task** Refurbishment of a multi-storey car park should interfere as little as possible with normal operation. Furthermore, the system must be able to withstand mechanical stress in the long term, so that the intervals between refurbishment measures can be extended.

**Repairs carried out without Closure** Modern PMMA resins are fully cured within 30 minutes and can be coated and/or are ready again for use in a flash. Consequently ramps can be refurbished in just a few hours. Entrances and exits can be repaired overnight. Weather conditions are only of secondary importance. The PMMA systems can be installed even at low temperatures and high humidity.

**Value-Preserving** Coatings made from flexible PMMA resins are waterproofing and road surfacing in one. They are only approx. 2 – 5 mm thick and weigh only approx. 5 – 8 kg/m2, and they can almost always be applied to existing surfacing, such as concrete and asphalt. There are no removal costs and the multi-storey car park can be kept open!

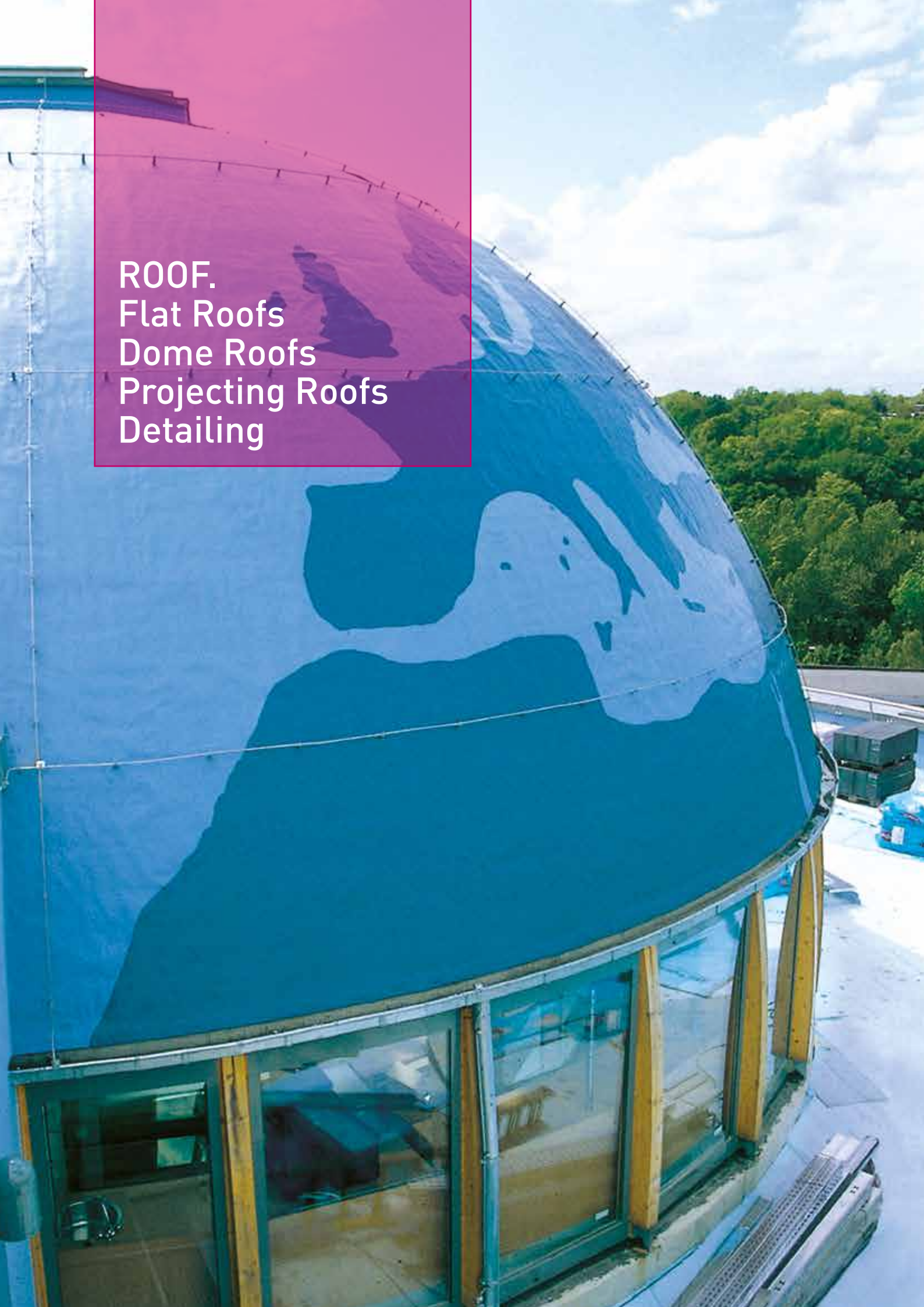
**Flexible and Resistant** Due to their chemical structure, PMMA resins are flexible and plasticiser-free. As a result they remain permanently elastic and extensible. Abrasion and wear are minimal. PMMA resins are able to withstand the toughest conditions.In addition, PMMA-based Waterproofing and Surfacing Systems have a high resistance to salts.

Abrasion-resistant

Rapid reactivity

Crack-bridging

Light weight



# ROOF.
## Flat Roofs
## Dome Roofs
## Projecting Roofs
## Detailing

# Secure Details · Weather-Resistant · Flexible

**The Task** Liquid resins demonstrate their absolute strengths when it comes to waterproofing roofs. The main areas and roof details, irrespective of shape and the substrate material, are waterproofed seamlessly and without joints.

**Secure Adhesion, optimum Extensibility** The different rates of expansion of the various materials (bitumen, concrete, metal etc.), triggered by thermal influences, are bridged permanently and securely. The key factor that allows this to happen is the ideal ratio between adhesion and tensile strength. A Liquid Waterproofing System will usually become partially detached from the substrate when a crack occurs. Consequently it creates the necessary scope for expansion so that it can reliably bridge subsequent cracks.

**Accurate Details** Complex details, penetrations or joints are the weak points of every Roof Waterproofing System. Upstands and edging on details can be waterproofed without seams or joints using the proven Wecryl 230 thix product. Thanks to its secure adhesion to common roofing waterproofing materials, including even bitumen or plastic roof sheets, liquid resin also offers a reliable and permanent solution for the waterproofing of details.

**Spray Application** Spray application offers a significant economic benefit for extensive roof areas or surfaces that are difficult to access. A hose system is used to convey the waterproofing resin directly to the roof and to apply it to the area to be waterproofed.

Seamless

UV-resistant

Low-temperature flexibility

Fully bonded

SPA.
Open-Air Pools
Indoor Pools
Turkish Baths
Showers

# Seamless · Resistant · Waterproof

**The Task** Most modern spas feature surfaces clad in natural stone or ceramic tiles. A seamless Waterproofing System that incorporates all the fittings and accessories (drainage channels, skimmers, jets and countercurrent units as well as under-water lighting, rails, ladder fixings and movable floor etc.), providing excellent adhesion and thereby preventing any sub-surface migration of water, is a matter of course today.

**Secure Adhesion** The seamless Waterproofing System adheres securely to the substrate to create a bond that prevents any sub-surface migration of water. Primers used to fill pores and create a secure bond with the waterproofing components, and covering layers acting as bond coats ensure the adhesion of the system as a whole.

**Verifiable Quality** High-voltage leak detection can be used to test the Waterproofing System before the surfaces are finished with costly natural stone and ceramic tiles. This eliminates the time-consuming need to fill the pools with water and allows construction work to continue without delay. The systems meet the most demanding requirements: they are tested according to ETAG 022 and also meet the requirements based on DIN 18195 part 7.

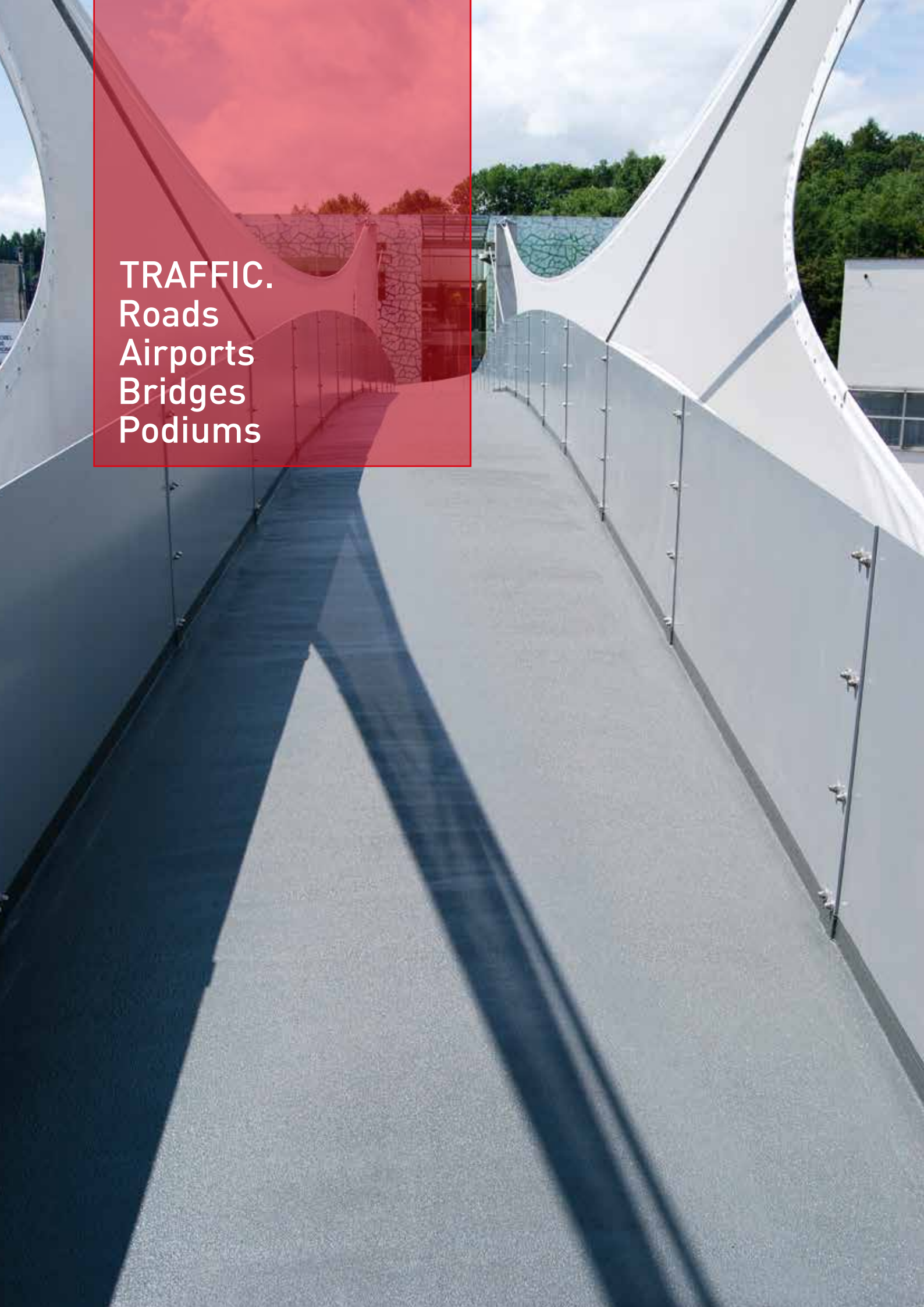
**Resistant to Chemicals** The sealing finish of the Waterproofing System features high resistance to chlorine, salts and other water additives.

Seamless

No sub-surface migration

Crack-bridging

High adhesive pull strength


TRAFFIC.
Roads
Airports
Bridges
Podiums

# Heavy Duty · Adaptable · Rugged

**The Task** Roads and infrastructural facilities are subject to constant dynamic and meteorological stress. Engineering structures (bridges, galleries, retaining walls etc.) must be protected from damaging influences such as de-icing salts. Traffic ways require rapid maintenance with minimum impact on the flow of traffic, even at low working temperatures. Safety-relevant aspects are also gaining in importance. Roads and forecourts need to be upgraded, with colour playing a part in the design.

**Thermoplastic Properties** PMMA resins possess thermoplastic properties. Long years of experience have confirmed their compatibility with other materials that make up the composite structure, also their durability when applied to a bituminous substrate, as a sealing finish or bonding layer on bridge slabs (between concrete and bitumen or between concrete and liquid waterproofing). PMMA has established itself as a material that reflects the state of the art. Select formulations are used as waterproofing products for main areas and details under mastic asphalt and rolled asphalt. Different components are combined in various systems to suit particular usage requirements. Waterproofing and wearing layers are used as a weight-saving surfacing combination, particularly on timber bridges.

**Colour Design** The colour markings of roads and plazas (FGSO) is also an architectural element. Large areas can be identified with different textures and finishes, depending on their use and the requirements. The planning procedure must comply with the law and demands the appropriate competence in implementation.

Rapid

Resistant to high and low temperatures

Crack-bridging

Abrasion-resistant

SPECIAL.
Ponds
Underground
Fountains
Kitchens

Special

# High Performance · Flexible · Versatile

**The Task** The tasks are varied: exceptional requirements, exposure to extremely high levels of wear, stress, unusual conditions of use are the challenges we face. Our systems come into their own where conventional systems meet their limits.

**New-Build Application** Anything that works for refurbishment projects can also be used for new developments. Many producers of constructions made from water-impermeable concrete (WI concrete) play absolutely safe when it comes to waterproofing all the relevant joints and opt for liquid waterproofing based on fast-curing PMMA resins.

**Hygienic and Resistant** Industrial kitchens demand an extremely high standard for their interior work. The kitchen floor must be waterproof, seamless, hygienic, non-slip, resistant to hot water and oil, attractive and easy to clean. In this context it is vital that the upstands and edges of the Waterproofing System on and around drains, drainage channels, surrounds and penetrations are watertight. It takes a high level of professional skill in terms of technology, material and system selection and workmanship to produce such quality.

**Seamless and Flexible Waterproofing** Movements in the substrate can be bridged safely, thanks to the high elasticity of PMMA. The waterproofing, which is applied wet in wet, also provides a seamless coating that can accommodate individual designs. Seamless means without joints – and fewer joints mean better hygiene. A flexible and crack-bridging Waterproofing System is essential for a joint-free system.

Joint-bridging

Root-resistant

Seamless

Easy maintenance

# Solution-Oriented · Versatile · Harmonised

**The right Systems** Each construction project is unique. To make sure that the optimum, solution-oriented measures are taken, it is important to select the right combination of products. Essentially a system consists of the following:

- Primer
- Waterproofing Layer (with or without embedded fleece)
- Protective Layer
- Wearing Layer

In every case the substrate must first be assessed and prepared accordingly.

**In keeping with Requirements** PMMA systems can incorporate different product combinations to suit particular requirements. Thanks to their various properties, all the layers combine to create a 100 % cross-linked bond, which means that there is no risk of delamination. This fact allows us to determine the best possible and most economically efficient system in each case.

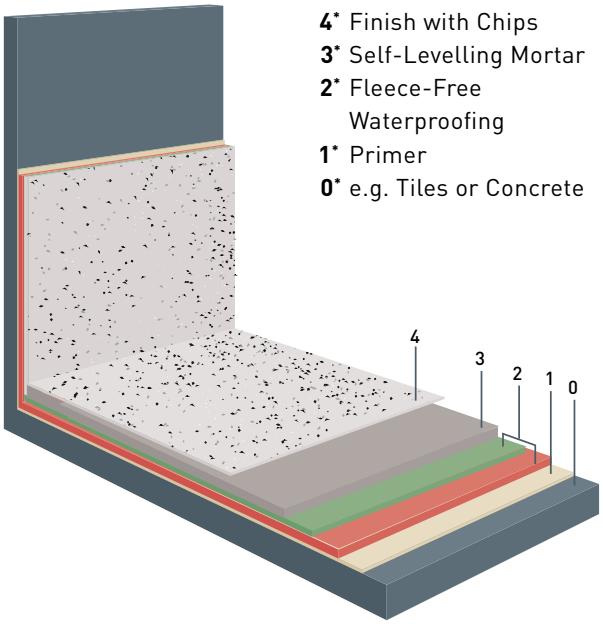
**Technical Documentation** Please go to wwwwestwood-uk.com to discover many more drawings of systems and details as well as all current product information sheets, system descriptions and helpful information about the application of liquid resins.

**Balcony Waterproofing System** This is a seamless, crack-bridging and joint-bridging Waterproofing System that is able to withstand mechanical stress. It contains a highly flexible waterproofing layer as well as abrasion-resistant system layers for foot traffic. Liquid application and secure adhesion to substrates allow all upstands on details to be waterproofed permanently and reliably. Surfaces can be finished in any colour and pattern.

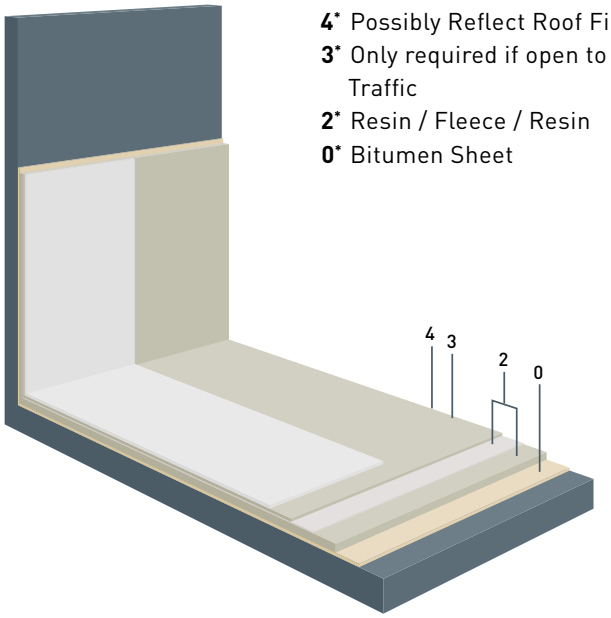
With general building authority test certificate for use as waterproofing of buildings within the meaning of DIN 18195, parts 4, 5, 6, 7

**Roof Waterproofing System** This is specifically designed as a highly durable Waterproofing System for roofs. Since it is applied as a liquid, it creates a seamless Waterproofing System in which even complex roof penetrations can be incorporated securely and durably. The system is extremely weather-resistant, crack-bridging, flexible at low temperatures and its surface can be finished in any desired colour.

With European Technical Approval ETA-06/0087




**4*** Finish with Chips
**3*** Self-Levelling Mortar
**2*** Fleece-Free Waterproofing
**1*** Primer
**0*** e.g. Tiles or Concrete




**4*** Possibly Reflect Roof Finish
**3*** Only required if open to Foot Traffic
**2*** Resin / Fleece / Resin
**0*** Bitumen Sheet

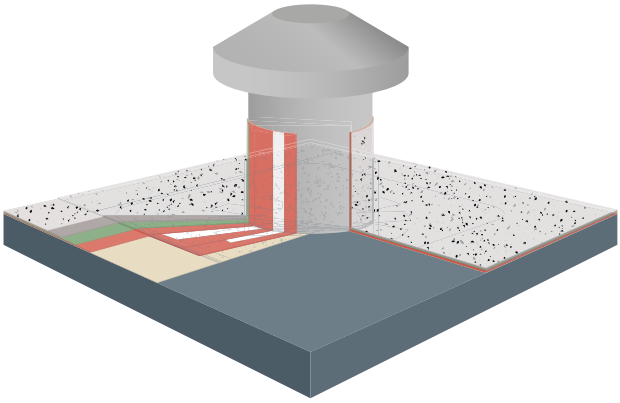
*4=Wearing Layer · 3=Protective Layer · 2=Waterproofing Layer · 1=Primer Layer · 0=Substrate

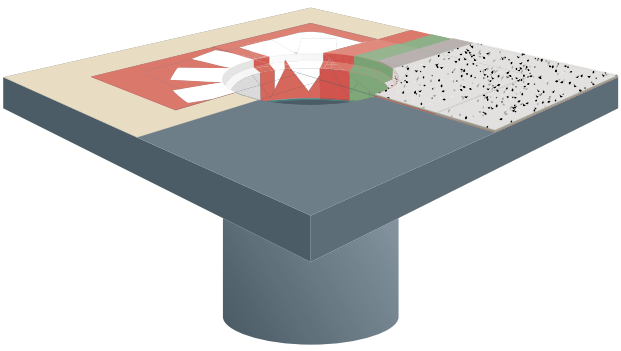
**Penetration, Integrating a Ventilation Pipe**

**0*** 1 e.g. Concrete, mech. pre-treated
2 e.g. Metal pipe, pre-treated
**1*** 3 e.g. Wecryl Primer 276, 276 K
**2*** - Detail Waterproofing
4 Weproof RR 354
5 WestWood Fleece cut to size 1
6 Weproof RR 354
7 WestWood Fleece cut to size 2
8 Weproof RR 354
**2*** - Waterproofing for main area
9 Weproof RR 354
10 Weproof RR 359
**3*** 11 Weproof RS 527 Self-Levelling Mortar
**4*** 12 Wecryl Finish 288 with topping

**Integrating a Floor Drain**

**0*** 1 e.g. Concrete, mech. pre-treated
**1*** 2 e.g. Wecryl Primer 276, 276 K
**2*** - Detail Waterproofing (Drain Waterproofing)
3 Weproof RR 354
4 WestWood Fleece cut to size 1
5 Weproof RR 354
6 WestWood Fleece cut to size 2
7 Weproof RR 354
9 Weproof RR 354
**2*** - Waterproofing for main area
8 Weproof RR 354
9 Weproof RR 359
**3*** 11 Weproof RS 527 Self-Levelling Mortar
**4*** 12 Wecryl Finish 288 with topping







Discover all drawings of systems and details at www.westwood-uk.com.

WestWood References

# Small Selection of interesting PMMA Projects

1

2

3

4

5

Captions

1 Stairwells, CH-Richterswil

2 PMulti-storey car park, Electoral Palace, D-Koblenz

3 Walkways, CH-Niederhasli

4 Thun Lake Stage, CH-Thun

5 Oberscheider service station, A-Lustenau

6 Stairwells central railway station, CH-Zürich

PMMA Delivers

# Variety of Applications

Liquid PMMA-based resins have been used as Waterproofing or Surfacing Systems for over 30 years. Depending on the technical, aesthetic and functional requirements, our systems are used in the follows areas of application:

**Balcony**
Terraces
Balconies
Access Galleries
Stairways

**Roof**
Flat Roofs
Dome Roofs
Projecting Roofs
Detailing

**Parking**
Multi-Storey
Underground
Ramps
Entrances and
Exits

**Spa**
Open-Air Pools
Indoor Pools
Turkish Baths
Showers

**Traffic**
Roads
Airports
Bridges
Podiums

**Special**
Underground
Pond Systems
Fountains
Kitchens

**Industry**
Warehouses
Frozen Storage
Workshops
Laboratories

**Commercial**
Food Production
Shopping Centres
Exhibition Facilities
Plant Rooms

**Agriculture**
Animal Barns
Feed Lines
Milking Parlours
Animal Transporters

"We have relied on WestWood for years now because you cannot afford to experiment with waterproofing. They offer a specific as well as an economical, lasting and reliable solution, whether for roofs, balconies, wet areas or car parks." Urs Krähenbühl, Head of Liquid Resin, Bauimpuls AG, CH-Heimberg

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