

# Triflex

Delivering solutions together.

From the liquid-applied waterproofing specialist

## Roof systems.



Triflex solutions for flat roofs and roof flashings

## Multiple challenges. One solution.

All year round, flat roofs are exposed to the elements, as well as mechanical, thermal and chemical loads. Wall and skylight joints, roof penetrations such as ventilation pipes and even junctions are particularly susceptible. Here, moisture penetration, cracks and weathering can have an impact on the fabric of the building. Triflex roof systems offer a solution to handle even the most demanding challenges with ease. The fleece-reinforced systems not only reliably and permanently waterproof surfaces, but also complicated details. High-quality products, more than 40 years of experience and know-how paired with a comprehensive and expert service make Triflex the partner to turn to when it comes to premium roof systems.



Triflex system strengths

## From us. For you. Great advantages.

Fleece-reinforced waterproofing of details, junctions, joints and surfaces.

**Long-lasting protection means safety especially in particularly challenging areas.**

Highly reactive, fast-curing liquid-applied waterproofing.

**Simple application and quick project implementation.**

Hydrolysis-resistant and resistant to chemical influences.

**Long-lasting functional solutions which ensure great reliability.**

Lasting protection of the structure against damp and moisture.

**Long service life, longer intervals between refurbishments and considerable increase in property value.**

# Mightily impressive.



## **Unbeatably versatile.**

Whether you're dealing with a new build, a refurbishment project or minor repairs, surface waterproofing, details, complex roof structures, green roofs or different substrates, Triflex offers the ideal, customised and long-lasting solution to meet every challenge.



## **Extremely durable.**

Triflex solutions are certified in the highest performance categories and have performed successfully in extensive tests and in long-term practical use. The expected service life of the waterproofing in accordance with ETAG 005 is 25 years.



## **Extremely waterproof down to the smallest detail.**

Whether you're dealing with penetrations, columns, ventilation pipes, joint details or special structures, Triflex solutions come into their own when handling complicated details. The flexible material together with the fleece reinforcement ensures seamless and jointless waterproofing.

Easy, full-surface adhesion to most substrates.

**Highly reliable application in combination with other materials as well.**

Maximum loading level P4.

**Reliable waterproofing of even soft roofing membranes and thermally insulated surfaces.**

Can be applied in temperatures as low as -5 °C.

**Reliable planning and application regardless of the weather conditions and time of year.**

Root and rhizome-resistant.

**For sustainable waterproofing of green roofs.**



## Exceptional quality. Exceptional conformity.

With Triflex roof systems, you're on the safe side when it comes to surface and detail waterproofing. At Triflex, we regard continuous internal and external quality controls in production and extensive field tests prior to market launch as essential.

- Highest possible categories as per ETAG 005 (W3, M and S, P1-P4, S1-S4, TL4, TH4).
- Certified safety as per ETA, root and rhizome-resistant as per FLL and according to DIN EN 13948.
- Approved without restrictions for standard designs and roofs with stringent requirements.
- Material guarantee filed with the Central Organisation of the German Roofing Trade Association (ZVDH).



## Used roofs



### Green roofs

Root and rhizome-resistant waterproofing of green roofs.



### Roof terraces

Low build-up height for waterproofing below other coverings including wood, tiles and slabs.



### Metal roofs

Reliable long-lasting protection against corrosion.



### Monument preservation

Optimum, long-lasting and requirements-based protection without any need for structural changes.

## Surfaces and junctions



### Homogeneous surfaces

due to seamless and jointless waterproofing of skylights, roof penetrations and vents.



### Can be combined in a variety of ways

Suitable for full-surface waterproofing or in the material mix with roofing membranes and sheets.



### Protection

Resistant to UV, IR and weathering without any additional surface protection.



### Maintenance paths

Coloured, non-slip safety marking.

## Complex roof structures



### Technically sophisticated

Flexible use to meet the most stringent requirements.



### Customised design

Diversity in shape and colour.

Long-lasting and safe

## Proven surface waterproofing.

Flat roofs place very high demands on the waterproofing material used, particularly in areas where there are valuable production plants, underlying offices and sales rooms, and even when it comes to residential buildings. Triflex ProTect offers many advantages compared to conventional waterproofing membranes. The fully fleece-reinforced roof surface waterproofing system is long-lasting, can withstand mechanical loads, is highly weather-resistant and ensures longer intervals between refurbishments. Triflex ProTect can also be used underneath other coverings, such as gravel, paving or grass. Its high resistance to hydrolysis means it can even be used in standing water applications.

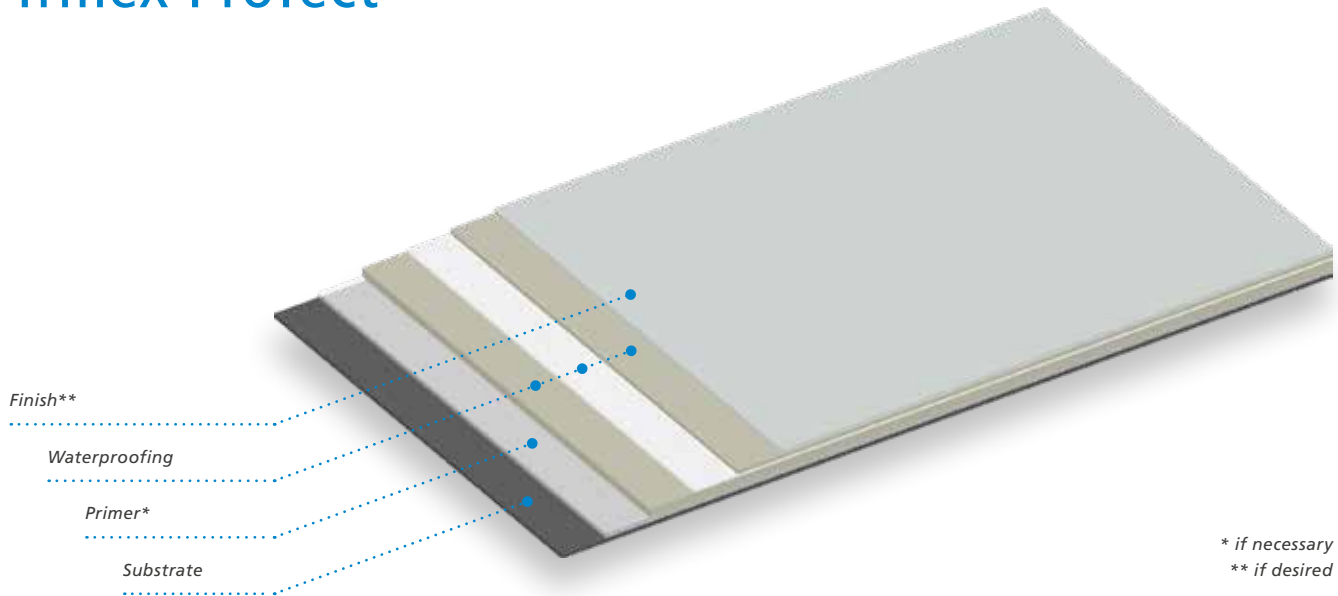


### Application examples:

- 1 Pitch-independent refurbishment of a tar-based, barrel-shaped roof
- 2 Seamless and jointless waterproofing with full-surface adhesion
- 3 Used roofs as roof terraces
- 4 Non-slip, coloured coating as a maintenance path

# Triflex ProTect

System build-up  
Triflex ProTect



\* if necessary  
\*\* if desired

## System strengths

- + Efficient surface waterproofing
- + Resistance to hail according to DIN 18531
- + Low surface weight of less than 4 kg/m<sup>2</sup>
- + Root and rhizome-resistant as per FLL and according to DIN EN 13948
- + Highest performance classes as per ETAG 005
- + Suitable for normal pedestrian traffic
- + No further overlays for surface protection needed
- + Hydrolysis-resistant
- + Chemically resistant to red algae, bird droppings, oils and greases
- + Compatible with bitumen

## Additional products

- + White waterproofing for solar roofs with Triflex Cryl Finish 205
- + Triflex Cryl SC 237 for non-slip, coloured coating as a maintenance path



- + **Fire protection.**  
Satisfies European tests with an external fire load of B<sub>ROOF</sub> (t1), B<sub>ROOF</sub> (t2), B<sub>ROOF</sub> (t3), B<sub>ROOF</sub> (t4).

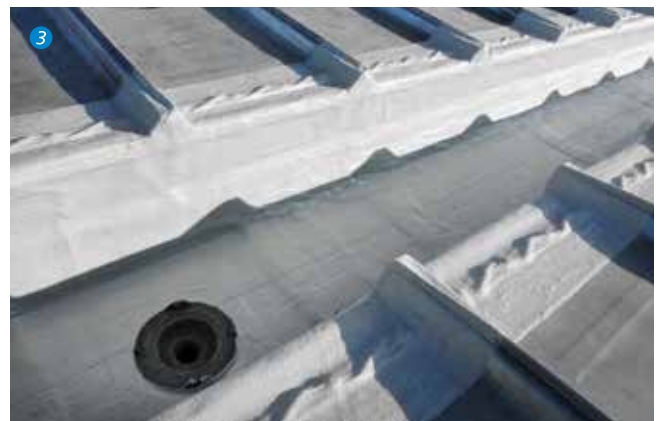
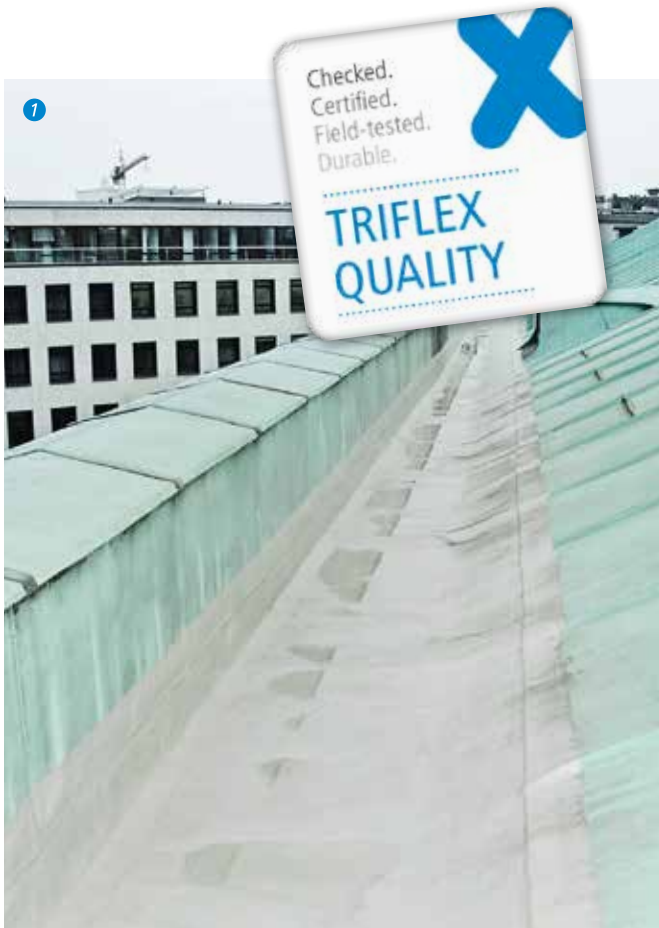
- + **Certified safety.**  
For standard designs and high-quality designs with stringent requirements as per DIN 18531 and the German Flat Roof Guidelines.

|   |  |
|---|--|
| <b>CE</b>   |  |
| <b>Triflex 03</b>   |  |
| ETA-03/00020 Roof waterproofing Triflex ProTect                       |  |
| Usage categories:   |  |
| Stress from external fire exposure in compliance with DIN EN 13501-5: | Classes B <sub>ROOF</sub> (t1), B <sub>ROOF</sub> (t2), B <sub>ROOF</sub> (t3) |
| Fire classification DIN EN 13501-1:                                   | Class E  |
| Working life:   | W3   |
| Climate zones:  | M and S  |
| Payloads:   | P1 to P4   |
| Roof slopes:  | S1 to S4   |
| Lowest surface temperature:   | TL4  |
| Highest surface temperature:  | TH4  |
| Statement on hazardous substances:                                    | none contained   |

Seamless and jointless

## Unique detail waterproofing.

It's not just the surface waterproofing that ensures the water-tightness of a flat roof; the solution for joints and details is also crucial. It only takes one single weak point to compromise the functionality of the overall waterproofing membrane. The fully reinforced waterproofing system Triflex ProDetail was specifically designed for roof flashings and details such as skylights and penetrations. Triflex ProDetail has obtained the European Technical Approval (ETA) and absorbs movement from other functional layers without any problems. Repairs can be reliably performed in all weathers.



### Application examples:

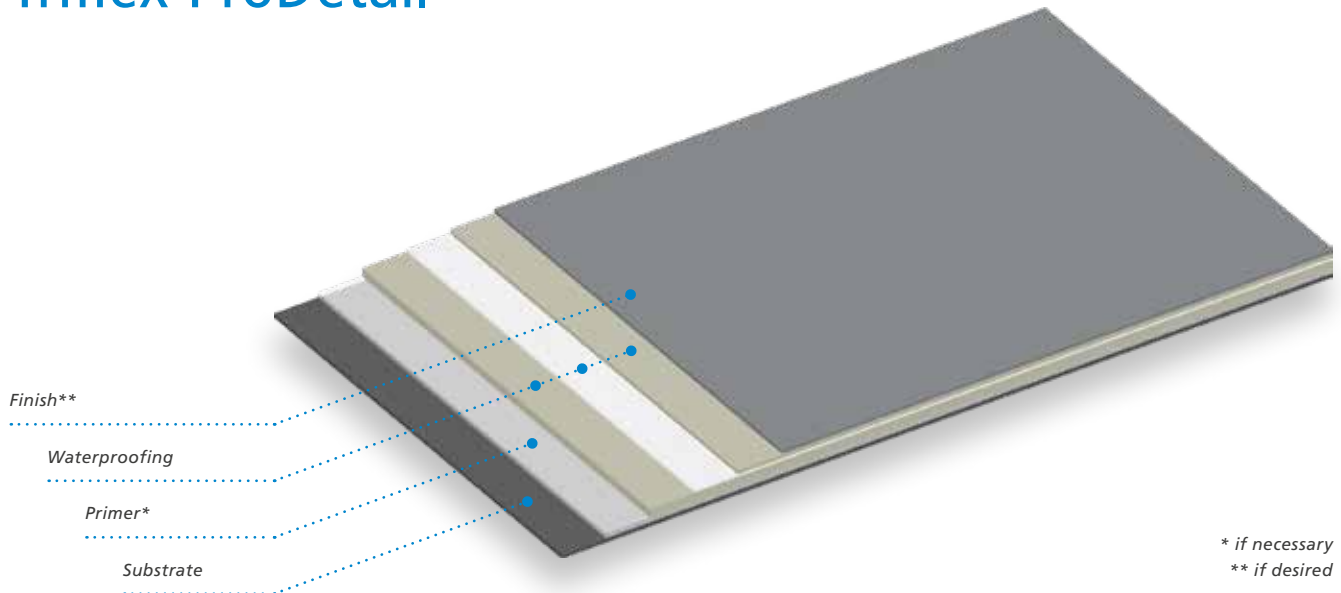
- 1 Connection to metal, here: Copper
- 2 Seamless and jointless detail waterproofing on bitumen membrane
- 3 Hydrolysis-resistant waterproofing of drainage channels
- 4 Simple connections without flashing strips or concave trims
- 5 Waterproofing on fibreglass-reinforced skylight and roof membrane without mechanical fastening or primer



Detail waterproofing system

# Triflex ProDetail

System build-up  
Triflex ProDetail



## System strengths

- + Reliable detail waterproofing
- + Satisfies European tests with an external fire load of  $B_{ROOF} (t1)$ ,  $B_{ROOF} (t2)$ ,  $B_{ROOF} (t3)$ ,  $B_{ROOF} (t4)$
- + Root and rhizome-resistant as per FLL and according to DIN EN 13948
- + Highest performance classes as per ETAG 005
- + Simple application even on vertical surfaces
- + Vapour-permeable, no impact on the existing functional layers
- + Impermeable, no mechanical fastening necessary
- + Chemically resistant to red algae, bird droppings, oils and greases

## Additional products

- + Triflex ProFibre, fibre-reinforced waterproofing without fleece inlay for hard-to-reach details
- + Moulded parts with Triflex special fleece for inner and outer corners as well as pipe penetrations



- + **Fire protection as per DIN 13501-1.** Triflex ProDetail with Triflex Cryl Finish S1 finish is available as a flame-retardant variant on concrete.

- + **Certified safety.**

For standard designs and high-quality designs with stringent requirements as per DIN 18531 and the German Flat Roof Guidelines.

|   |   |
|---|---|
| <b>CE</b>   |   |
| <b>Triflex 06</b>   |   |
| ETA-04/0269 Roof waterproofing Triflex ProDetail                      |   |
| Usage categories:   |   |
| Stress from external fire exposure in compliance with DIN EN 13501-5: | Classes $B_{ROOF} (t1)$ , $B_{ROOF} (t2)$ , $B_{ROOF} (t3)$ |
| Fire classification DIN EN 13501-1:                                   | Class E   |
| Service life:   | W3  |
| Climate zones:  | M and S   |
| Payloads:   | P1 to P4  |
| Roof pitch:   | S1 to S4  |
| Lowest surface temperature:   | TL4   |
| Highest surface temperature:  | TH4   |
| Statement on hazardous substances:                                    | none contained  |

Individual and versatile

# The ideal solution for every roof.

From warm roof to roof greening: The increasingly diverse roof shapes are placing more complex demands on the waterproofing as well. By using Triflex waterproofing systems, you're being extremely flexible and playing it safe with every challenge you encounter. This is because our systems adhere to around 90 % of all roofing membranes and, when used in combination with different materials, have a low surface weight and a very low build-up height, are highly flexible and seamlessly and jointlessly incorporate all the details.

- Warm roofs
- Cold roofs
- Green roofs
- Under standing water
- Roofs with maintenance paths
- Under other coverings



**Examples:**

- ① Warm roof
- ② Green roof
- ③ Roof with maintenance paths
- ④ Waterproofing under heavy surface protection

Solutions for metal roofs

## Protection against corrosion. Brilliantly solved.

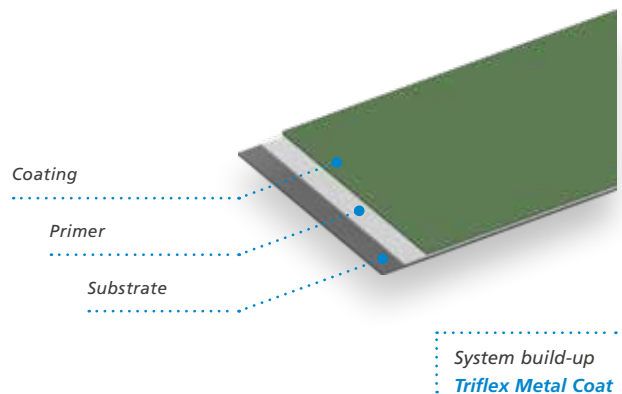
The metal roof has proved itself to be a particularly low-cost solution for industrial buildings. However, both the elements and mechanical loads can lead to corrosion and impair the roof's functionality. Here, we offer a special system that guarantees reliable long-term protection, can be designed in a variety of colours and also protects against rust due to anti-corrosive pigments:

**Triflex Metal Coat** and **Triflex ProDetail**.



### System strengths

- + Effective protection against corrosion
- + Low surface weight of less than 1 kg/m<sup>2</sup>
- + Variety of colours available

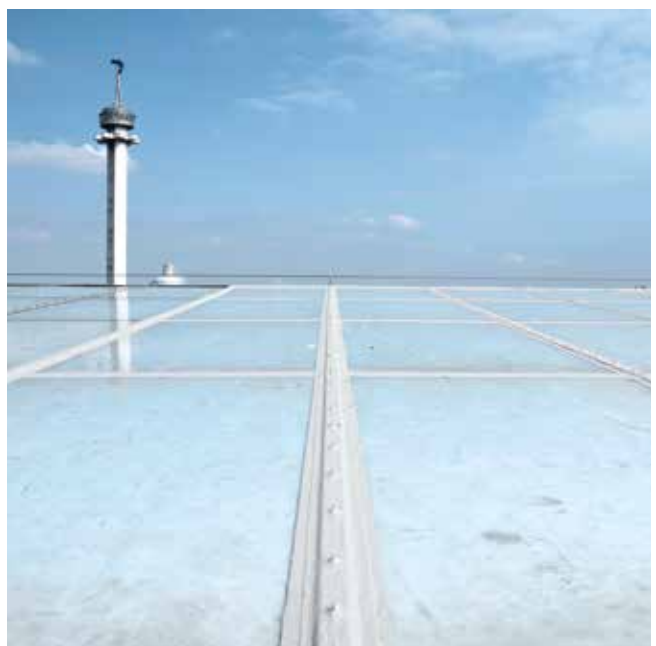


Solutions for glass roofs

## Better adhesion. Highly detailed waterproofing.

Joint waterproofing on glass roofs is a particular challenge. Brittle putty can allow rainwater to penetrate. Here, our special solution ensures excellent adhesion to glass, fast application and a highly detailed, long-lasting refurbishment:

**Triflex Glas Primer** and **Triflex ProDetail**.



Solutions for odour-sensitive areas

## Ventilation without any impact.

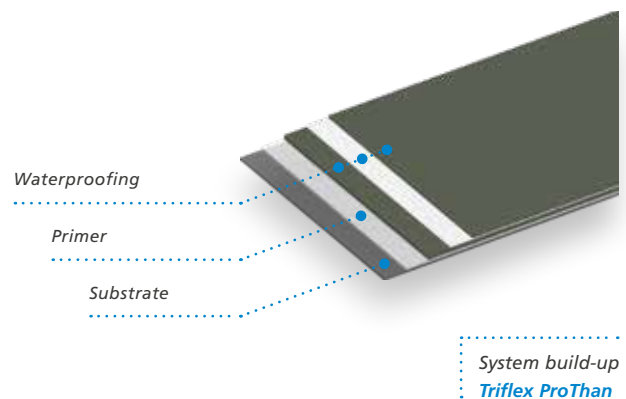
Hospitals, schools, nursing homes, ventilation shafts and other building ventilation equipment are especially odour-sensitive areas. The Triflex system for long-lasting waterproofing in these areas has a mild odour, so does not affect the building ventilation and can even be used during operation:

**Triflex ProThan** and **Triflex ProThan Detail**.



### System strengths

- + Low-odour application
- + Highest performance classes as per ETAG 005
- + Hail impact test as per DIN EN 13583
- + B<sub>ROOF</sub> (t1) rigid roofing
- + Refurbishment even during operation
- + Safe waterproofing, applied without a naked flame



Solutions for green roofs

## Waterproofed in the long term. Sustainably protected.

Green roofs aren't just visually pleasing; they also combine a multitude of economic and ecological benefits. In accordance with the guidelines set down by the Forschungsgesellschaft Landschaftsentwicklung Landschaftsbau e. V. (FLL – The Landscaping and Landscape Development Research Society) and DIN EN 13948, Triflex waterproofing systems are root and rhizome-resistant, meaning that the waterproofing layer will not be damaged and sustainable roof waterproofing is guaranteed.



Solutions for monument preservation

## Individual requirements. Optimum maintenance.

The challenges encountered when refurbishing historical buildings are diverse: requirements have to be satisfied, no structural changes may be made, and often cracks have to be bridged. Here, Triflex systems preserve the historical character, reliably adhere to different substrates and guarantee a waterproofing solution that is reliable in the long term even under a wide variety of coverings.



Solutions for visually appealing geometries

## Versatile design. Uniquely long-lasting.

Modern, unusual architecture and design make waterproofing particularly challenging. Triflex systems easily adhere to the surface in question and are the ideal solution for long-lasting waterproofing even when dealing with architecturally challenging and complex areas.





### Triflex project expertise

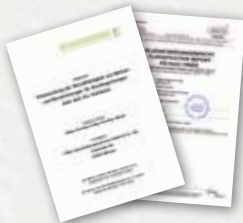
As a manufacturer and direct distributor of liquid applied waterproofing for balconies, roof terraces and walkways, we boast more than 40 years of project experience and can offer customised solutions to meet your requirements. We ensure ideal cooperation between contractors, planners, our staff and systems. The channels are short and direct, and personal contact is guaranteed without complications. Welcome to the Triflex family.



### Triflex training expertise

We communicate our know-how directly and bypass trade intermediaries: we train and provide advice before, during and after the project. This guarantees the best possible application results, optimum solutions and long-term satisfaction.

MORE THAN  
JUST  
ROOFING  
SYSTEMS.



### Triflex quality

- Highest possible categories as per ETAG 005 (W3, M and S, P1–P4, S1–S4, TL4, TH4).
- Certified safety as per ETA, root and rhizome-resistant as per FLL and DIN EN 13948.
- Material guarantee filed with the Central Organisation of the German Roofing Trade Association (ZVDH).
- Triflex system warranty.



### Triflex service

This is where we as a manufacturer and direct distributor are closer to the action: we support and supervise your project with our technical advisors and applications engineers. We offer advice from the word go, help you with offers and use our technical expertise to assist with execution and, in doing so, guarantee the long-term success of your project.

Triflex roof systems

# Reference projects.



**Metal roof on an industrial hall, Pirmasens (GER)**

- Special feature: Metal roof
- Property size: 1,400 m<sup>2</sup>
- Systems: Triflex ProDetail and Triflex Metal Coat
- Completion: 2014



**Maximum auditorium, University of Leipzig (GER)**

- Special feature: Arched roof with a homogeneous surface
- Property size: 1,400 m<sup>2</sup>
- Systems: Triflex ProTect and Triflex ProDetail
- Completion: 2013



**Sawtooth roof on an industrial hall, Brunswick (GER)**

- Special feature: Glass cover
- Property size: 4,000 m<sup>2</sup>
- System: Triflex ProDetail
- Completion: 2016



**Factory hall, Besnate (IT)**

- Special feature: Arched roof
- Property size: 900 m<sup>2</sup>
- System: Triflex ProTect
- Completion: 2014



**Danube Tower, Vienna (AUT)**

- Special feature: Copper roof
- Property size: 220 m<sup>2</sup> ribbed marking
- System: Triflex ProDetail
- Completion: 2013



**Towers apartment building, Vienna (AUT)**

- Special feature: Listed sheet metal roofs
- Property size: 2 x 180 m<sup>2</sup>
- Systems: Triflex ProDetail, Triflex ProFibre, Triflex Metal Coat
- Completion: 2015

## Triflex roof systems at a glance.

| Requirement   | Surface waterproofing systems |                 | Detail waterproofing systems |                        | Complementary systems and products |                  |
|---|-------------------------------|-----------------|------------------------------|------------------------|------------------------------------|------------------|
|   | Triflex ProTect               | Triflex ProThan | Triflex ProDetail            | Triflex ProThan Detail | Triflex Metal Coat                 | Triflex ProFibre |
| Surface waterproofing of roofs                            | ●                             | ●               |                              |                        |                                    |                  |
| Repair material for rapid waterproofing                   |                               |                 | ●                            |                        |                                    | ●                |
| Waterproofing underneath green roofs                      | ●                             |                 | ●                            |                        |                                    |                  |
| Waterproofing of details and junctions                    |                               |                 | ●                            | ●                      | ○                                  | ●                |
| Waterproofing at the junction between different materials | ●                             | ○               | ●                            | ○                      | ○                                  | ●                |
| Waterproofing of partial sections and areas               | ●                             |                 | ●                            | ●                      |                                    |                  |
| Waterproofing work in odour-sensitive areas               |                               | ●               |                              | ●                      |                                    |                  |
| Coating of metal roof surfaces                            |                               |                 |                              |                        | ●                                  |                  |
| Test certificates (selection)*                            | ETA                           | ETA             | ETA                          | ETA                    | (ETA)                              | Fire test        |

● Suitable ○ Special solution \*Further information available in the system descriptions

# Triflex

Delivering solutions together.

## International

Triflex GmbH & Co. KG  
Karlstrasse 59  
32423 Minden | Germany  
Fon +49 571 38780-708  
international@triflex.com  
www.triflex.com

