

Planning documents
Reflection coating

Triflex ProSolar





Applications



Triflex ProSolar is a white coating system that can significantly improve the efficiency of photovoltaic systems installed on it. The system can be used on existing, functional waterproofing as well as on new waterproofing (e.g. with Triflex ProTect).

The performance of a photovoltaic system plays a key role, especially for the client's investment planning: the higher the performance, the quicker the payback on investments and the sooner the construction will pay for itself. With the black bitumen and polymer bitumen sheeting in particular, Triflex ProSolar has a positive effect on the payback period.

Increased effectiveness of photovoltaic systems

Photovoltaic systems continue to be an attractive market for private and commercial space. The systems are often installed on existing roof surfaces. Here, the efficiency and thus the effectiveness of the photovoltaic system can be increased with the help of Triflex ProSolar. The light colour of the system increases the degree of reflection and lowers the surface temperature. Both have a positive effect on the performance of the photovoltaic system.



Advantages at a glance

Ideal for refurbishments

The system can be applied to virtually all substrates, is vapour-permeable and, with a surface weight of less than 1 kg/m², it is also suitable for application on existing waterproofing systems without negatively affecting stability. This saves removal costs and time.

Short curing times

The liquid-applied system has particularly rapid curing times. It is fully functional after only an hour. This ensures reliable processing – even in changeable weather and at substrate temperatures of down to 0 °C.

Easy to maintain

Triflex ProSolar has excellent mechanical and chemical stability. The system can be walked on normally and requires no further overlays as surface protection. It also fully bonds to the substrate preventing the underflow of rainwater. This means that any leakages are easy to locate and repair.

Return on Investment (ROI)

The white Triflex ProSolar surface is considerably more reflective than conventional roof sheeting. This results in a major increase in the performance of photovoltaic systems and, in turn, shorter payback periods.

Thermal protection

The rooms below the system are protected from sunlight. As a result, the climate in the rooms is cooler and more pleasant. Electricity consumption by air-conditioning systems can be reduced.

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And this is how it's done ...



1. The substrate is prepared.



2. Prior to applying the waterproofing, Triflex Catalyst is stirred into the resin.



3. Prime with Triflex Primer (see substrate pre-treatment).



4. Finish with Triflex ProSolar Finish.



Compatible system components

All the Triflex products mentioned in this system are carefully coordinated on the basis of laboratory testing and years of experience. This standard of quality ensures optimum results during both application and use.



Reflection coating

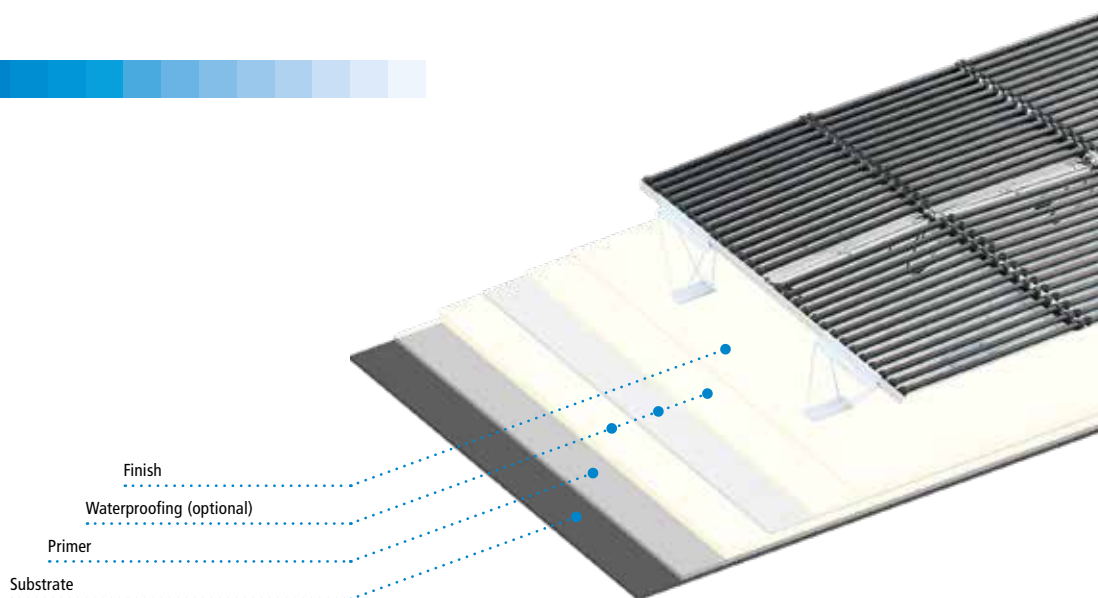
Triflex ProSolar

System description

Properties

- Fully reinforced waterproofing system with a polymethyl methacrylate (PMMA) base
- Hydrolysis-resistant
- Seamless
- Cold-applied
- Fast-curing
- Flexible in low temperatures
- Excellent adhesion properties on a multitude of substrates
- Root-resistant in line with FLL
- Can be used at substrate temperatures of down to 0 °C
- Extremely weather-resistant (UV, IR, etc.)
- Radon-resistant
- Suitable for normal pedestrian traffic
- Elastic and crack-bridging
- Vapour-permeable
- Resistant to chemicals present in air and rainwater
- Resistant to external fire exposure to DIN 4102 / DIN EN 13501
- Hard roofing in accordance with the German regional building regulations
- European Technical Assessment with CE mark in the highest usage categories (W3, M and S, P1 bis P4, S1 to S4, TL4, TH4)
- Meets the requirements of DIN 18531 and the German Flat Roof Guidelines
- General Building Supervisory Authority Test Certificate (abP) for liquid-applied waterproofing of building structures set out in PG-FLK according to VV TB No. C 3.28

System build-up



System components

Primer

Triflex Primer for sealing the substrate and ensuring substrate adhesion (if necessary, see substrate pre-treatment table).

Waterproofing

Optional: Triflex ProTect colour 9010 waterproof membrane, fully reinforced with a sturdy Triflex special polyester fleece.

Finish

Triflex ProSolar Finish for increasing the reflection factor.

Substrate

The suitability of the specific substrate should always be tested. The substrate must be clean, dry and free of cement bloom, dust, oil, grease and other adhesion-inhibiting substances.

Moisture: When carrying out waterproofing work, the substrate moisture must not exceed 6% by weight. Ensure that structural measures are taken to prevent moisture penetration of the coating from underneath.

Dew point: During application, the surface temperature must be at least 3 °C above the dew point temperature. Below this temperature, a separating film of moisture can form on the surface.

Hardness: Mineral substrates must be permitted to fully harden for at least 28 days.

Adhesion: The following tensile strengths must be verified on pretreated test surfaces:

Concrete: at least 1.5 N/mm² on average, and no single value below 1.0 N/mm².



System description

Substrate pre-treatment

Substrate	Pre-treatment	Primer
Aluminium	Remove loose rust and rust scale, abrade with Triflex Cleaner	Triflex Metal Primer ⁽²⁾
Cold bitumen coating	Adhesive strength test	Triflex Cryl Primer 222
Copper	Remove loose rust and rust scale, abrade with Triflex Cleaner	Triflex Metal Primer ⁽²⁾
FRP/skylight frame	Abrade with Triflex Cleaner, roughen surface	No primer
Hot bitumen coating	Adhesive strength test	Triflex Cryl Primer 222
Paint	Completely grind off	See substrate
Plastic sheeting (PIB)	Roughen surface, adhesive strength test	On request ⁽¹⁾
Plastic sheeting (PVC-P, nB), EVA	Abrade with Triflex Cleaner	No primer
Plastic sheeting (TPO, FPO, EPDM)	Abrade with Triflex Cleaner, roughen surface, adhesive strength test mandatory	On request ⁽¹⁾
Polymer bitumen sheeting (PYE) mod. (SBS)	Remove any loose material	No primer
Polymer bitumen sheeting (PYP) mod. (APP)	Remove any loose material, adhesive strength test	Triflex Cryl Primer 222
PVC mouldings, rigid	Abrade with Triflex Cleaner, roughen surface	No primer
Stainless steel	Remove loose rust and rust scale, abrade with Triflex Cleaner	Triflex Metal Primer ⁽²⁾
Steel, galvanised	Remove loose rust and rust scale, abrade with Triflex Cleaner	Triflex Metal Primer ⁽²⁾
Zinc	Remove loose rust and rust scale, abrade with Triflex Cleaner	Triflex Metal Primer ⁽²⁾

⁽¹⁾ Depending on the type of sheeting, e.g. using Triflex Primer 610.

⁽²⁾ Alternative to priming: Abrade with Triflex Cleaner and roughen surface.
Information on other substrates is available on request (technik@triflex.de).

Important:

Adhesion must always be tested on the specific substrate!

Priming

Triflex Cryl Primer 222

Apply evenly with a Triflex universal roller.

Consumption: at least 0.40 kg/m².

Can be recoated after approx. 45 mins.

Triflex Metal Primer

Apply a thin coat with a short-pile roller (e.g. MP roller) or alternatively, apply a thin coat with a spray can.

Consumption: approx. 80 ml/m².

Can be recoated after approx. 30 to max. 60 mins.

Triflex Primer 610

Apply evenly with a brush or roller.

Consumption: approx. 40 to 80 g/m²

Can be recoated after approx. 20 mins.

Finishing

The sealing of all vertical junctions, transitions and details must be carried out prior to the surface finishing with thixotropic Triflex ProSolar Finish.

The product is thickened by the in-situ addition of 1 % by weight Triflex Liquid Thixo.

"Smooth" surface:

Triflex ProSolar Finish

Cross-coat evenly using a Triflex Universal Roller.

Consumption at least 0.60 to 0.80 kg/m².

Can be walked on after approx. 1 hr.

Surface "maintenance paths / hazard areas".

Triflex Cryl SC 237

Apply evenly to the waterproofing using a Triflex universal roller.

Consumption: approx. 2.00 kg/m².

Can be walked on after approx. 2 hrs.



System description

Work interruptions

If work is interrupted for more than 12 hrs., or if soiled by rain etc., the intersection must be activated with Triflex Cleaner.

Airing time: at least 20 mins.

Transitions to subsequent waterproofing must overlap (incl.

Triflex Special Fleece) by a minimum of 10 cm. This also applies to junctions, transitions and detail solutions with Triflex ProDetail. The finish must be applied

within 24 hrs. If this application is delayed for any reason, the surface to be finished must be pre-treated with Triflex Cleaner.

System components

For information on applications, conditions of use and instructions for mixing, see product information (request if necessary):

[Triflex Cleaner](#)

[Triflex Cryl Primer 222](#)

[Triflex Cryl SC 237](#)

[Triflex Metal Primer](#)

[Triflex Primer 610](#)

[Triflex ProSolar Finish](#)

[Triflex ProTect \(optional\)](#)

Quality standard

All Triflex products are manufactured in accordance with the standards defined in ISO 9001. To ensure quality of workmanship, Triflex products are only installed by fully trained and qualified specialist contractors.

Safety tips / Accident prevention

Read the safety data sheets before using the products.

Required consumptions / Waiting times

The specified consumption (coverage) figures apply only to smooth, even surfaces. Special allowance must be made for unevenness, roughness and porosity. Specified flash times and waiting times apply to a substrate and ambient temperature of +20°C.

General notes

The system descriptions, system drawings and product information sheets form the basis for using Triflex products, and it is essential to follow these when planning and carrying out your building project. Any deviation from the technical information provided by Triflex GmbH & Co. KG that is current at the time the work is carried out may invalidate the warranty.

Any project-related deviations require written approval from Triflex. All the information is based on general regulations, directives and other technical rules. The general regulations applicable in the particular country of use must be respected. Since the parameters can vary from case to case, the contractor is required to test the suitability, e.g. of the substrate. Non-Triflex products must not be used with Triflex systems. Information is subject to change based on the interests of technical advancement or enhancement of our products.

Tender texts

Please visit the Download section of the Triflex website at www.triflex.com to obtain the current standard specifications, which are available in a range of different file formats. Alternatively, visit the website www.ausschreiben.de or www.heinze.de.

CAD drawings

All CAD system drawings can be downloaded free of charge from the Download section of the Triflex website www.triflex.com. Contact us at technik@triflex.de to request further true-to-scale CAD drawings.

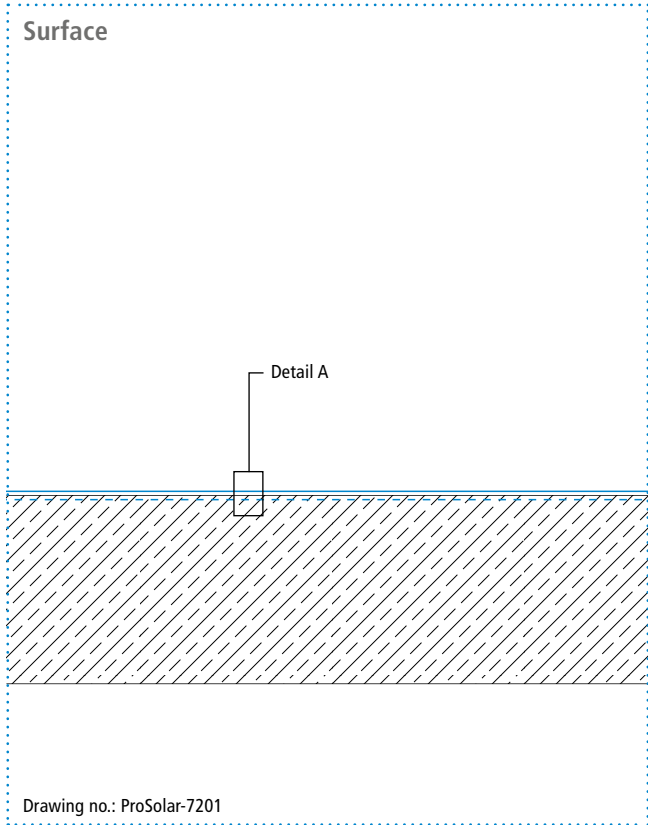


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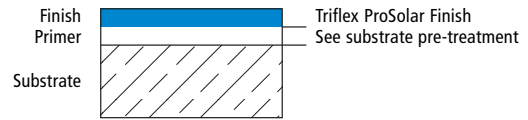
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System drawings

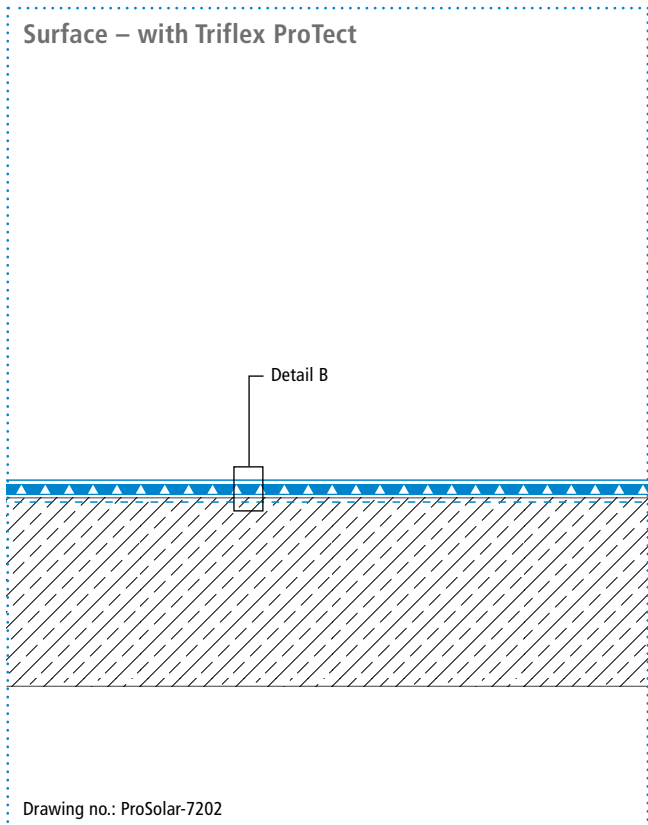
Surface



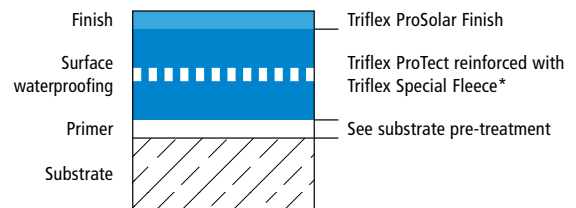
System build-up – Detail A



Surface – with Triflex ProTect



System build-up – Detail B



* Triflex Special Fleece or Triflex Special Fleece PF

Triflex

Delivering solutions together.

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