

Planning documents
Balcony flooring system
Triflex BFS





Applications



Triflex BFS is a thick-layer self-levelling mortar developed specially for balconies and walkways, which permanently withstands high mechanical and chemical loads. This coating helps to maintain the building structure on a lasting basis. Triflex BFS is applied to projecting paving and surfaces above non-inhabited spaces.

Balcony refurbishment in a single day

The resin used for Triflex BFS cures in less than an hour. All of the working phases involved in the complete coating of a balcony, from priming through coating to finishing, can be completed in a single day. Disruptions to residents are kept to a minimum, and even walkways can be used after extremely short closure times.



Safe escape routes thanks to fire protection

The Triflex BFS S1 version is a flame-retardant enhancement of the tried-and-tested coating system Triflex BFS. Special additives make this mechanically and chemically highly stable system flame-retardant, which means that it is ideal for walkways and escape routes. The unique Triflex BFS S1 system is designed exclusively for use on mineral substrates.

Advantages at a glance

Durable

Triflex BFS is a thick-layer system with a layer thickness of approx. 3 to 4 mm, depending on the version. The coating can permanently withstand even high mechanical point loads from tables and chairs on balconies, or pedestrian traffic on walkways.

Protection of the building structure

The thick-layer system is flexible, statically crack-bridging and waterproof. It protects the substrate against carbonation and chloride ingress. The material is chemical, weather and UV-resistant.

Fire protection

The Triflex BFS S1 version is a flame-retardant coating system. The product's fire behaviour is graded in Class B1 (flame-retardant) in accordance with DIN 4102 and Class B_{fl}-s1 according to DIN EN 13501-1. The exceptional quality of the system is verified by a test certificate (abP).

Even surfaces

The self-levelling mortar levels out minor unevenness in the substrate, thus ensuring visually attractive surfaces.

Ideal for refurbishments

The system can be applied to virtually all substrates, is vapour-permeable and, with a surface weight of less than 10 kg/m², it is also suitable for application on existing old coverings without negatively affecting stability. This saves removal costs and time.

Short closure periods

Triflex BFS offers considerably faster curing times than systems made of EP or PUR resins. Balconies and walkways are ready for use again just 2 hours after completion of the final working step. There are virtually no closure times for residents. It is also possible to carry out the work in stages.

Can also be applied in low temperatures

The coating system can be applied at substrate temperatures of down to 0 °C. This means that balconies can be refurbished even in the cold winter months.

Waterproof down to the smallest detail

The cured coating forms a seamless and joint-free surface. Fleece reinforcement for upturns and joints enhances safety. This means that even complicated details can be waterproofed without difficulty.

Colours and surface finishes

Surfaces can be creatively designed and finished in a range of colours using Triflex Chips Design, Triflex Colour Design and Triflex Creative Design. Non-slip surfaces can be produced with quartz sand dressings in Class R 12.

Easy-care

All surfaces can be kept clean quickly and easily using conventional methods.



And this is how it's done ...



1. Prime wall junction and surface.



2. Apply Triflex ProDetail to joints.



3. Insert Triflex Special Fleece, making sure that there are no air bubbles, and ...



4. ... apply generous coating of Triflex ProDetail.



5. Spread the surface coating Triflex ProFloor ...



6. ... using a trowel, and ...



7. ... level out.



8. First apply the finish Triflex Cryl Finish 205 to the details, ...



9. ... then apply to the surface and ...



10. ... blow in Triflex Micro Chips.



11. The balcony is complete in a single day.



Compatible system components

All the Triflex products mentioned in this system are lab-scale and application coordinated as a result of years of experience. This standard of quality ensures optimum results during both application and use.

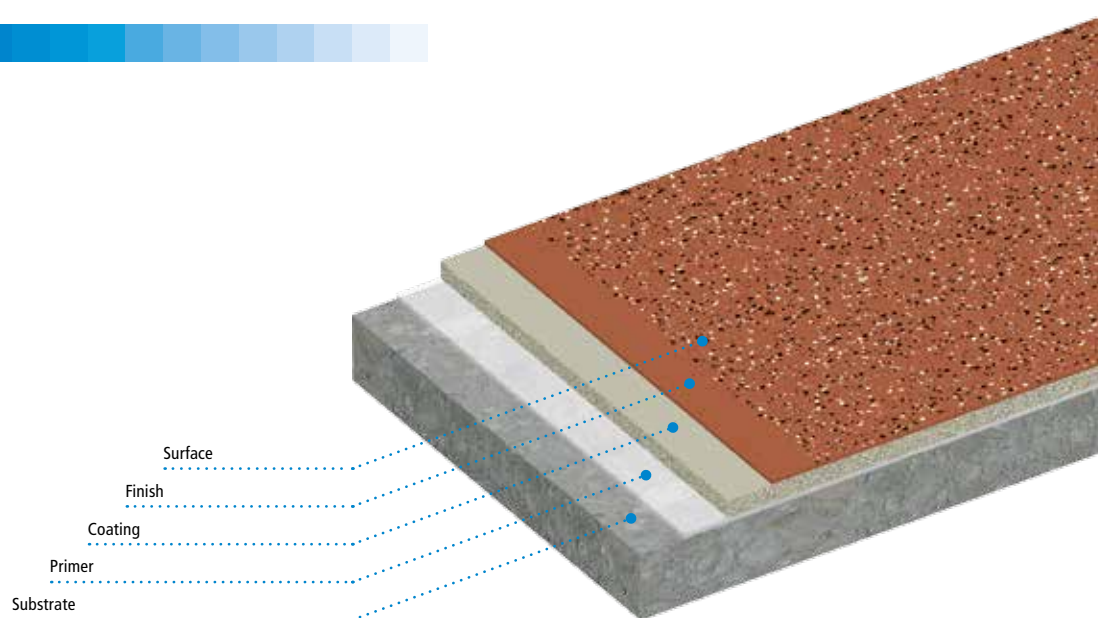


System description

Properties

- Waterproof thick-layer system made of polymethyl methacrylate (PMMA) resin
- Joints and details are carried out as fleece reinforced waterproofing
- Withstands high mechanical loads
- Seamless
- Full-surface adhesion
- Cold-applied
- Fast-curing
- Self-levelling
- Chemical-resistant
- Weather-resistant (UV, IR, etc.)
- Statically crack-bridging
- Surface design to specification
- Available in a variety of colours and finishes
- Coating tested acc. to EN 1504
- The Triflex BFS S1 version is flame-retardant (B1 in accordance with DIN 4102 and Class B_{fl}-s1 in accordance with DIN EN 13501-1)

System design



System components

Primer

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

Coating

Triflex ProFloor⁽¹⁾ / Triflex ProFloor S1⁽²⁾, self-levelling and waterproof thick coating.

Finish

Standard surface with Triflex Chips Design or Triflex Colour Design, non-slip system finish with quartz sand dressing. Other surface systems can be used for the creative use of colours and surface finishes.

Substrate

Substrate suitability should always be checked on a case-by-case basis. The substrate must be clean, dry and free of cement bloom, dust, oil, grease and other adhesion-reducing dirt.

Moisture: When carrying out coating 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 pre-treated test surfaces: Concrete: in the centre, at least 1.5 N/mm², individual value not less than 1.0 N/mm². Screed: in the centre, at least 1.0 N/mm², individual value not less than 0.7 N/mm². Asphalt: in the centre, at least 0.8 N/mm², individual value not less than 0.5 N/mm².

⁽¹⁾ Triflex ProFloor (3K) or Triflex ProFloor RS 2K
⁽²⁾ for the Triflex BFS S1 version (flame-retardant)



System description

Substrate pre-treatment

Substrate	Pre-treatment	Primer
Aluminium	Abrade with Triflex Cleaner, roughen surface	No primer ⁽³⁾
Asphalt	Grind	Triflex Cryl Primer 222
Composite thermal insulation systems	Remove any loose objects	Triflex Pox R 100
Concrete	Grind	Triflex Cryl Primer 276
Copper	Abrade with Triflex Cleaner, roughen surface	No primer ⁽³⁾
Epoxy resin coating	Roughen surface, adhesion and compatibility test	No primer
Glass	Abrade with Triflex Glass Cleaner, adhesion test	Triflex Glass Primer
Lightweight concrete	Remove any loose objects	Triflex Cryl Primer 276
Mortar, resin-modified	Grind, adhesion and compatibility test	Triflex Pox R 100
Paints	Completely grind off	See substrate
Plaster/masonry	Remove any loose objects	Triflex Cryl Primer 276
PU coating	Roughen surface, adhesion and compatibility test	No primer
PVC mouldings, rigid	Abrade with Triflex Cleaner, roughen surface	No primer
Screeds	Grind	Triflex Cryl Primer 276
Stainless steel	Abrade with Triflex Cleaner, roughen surface	No primer ⁽³⁾
Steel, galvanised	Abrade with Triflex Cleaner, roughen surface	No primer ⁽³⁾
Tiles	Mechanically remove glaze	Triflex Cryl Primer 276
Wood	Remove paints	Triflex Cryl Primer 276
Zinc	Abrade with Triflex Cleaner, roughen surface	No primer ⁽³⁾

⁽³⁾ Alternative to roughening: Abrade with Triflex Cleaner, prime with Triflex Metal Primer. Loose rust and blistering rust must first be removed. Information on other substrates is available on request (technik@triflex.de).

Important note:

1. The Triflex BFS S1 version (flame-retardant) can only be used to surface the following substrates: concrete, screed and lightweight concrete. Additional gradients must also be created using purely mineral-based materials.
2. Adhesion to the substrate must be checked on a case-by-case basis!

Primer

Triflex Cryl Primer 222

Apply evenly with a Triflex universal roller.

Volume: at least 0.40 kg/m². Can be recoated after approx. 45 min.

Triflex Cryl Primer 276

Apply evenly with a Triflex universal roller.

Volume: at least 0.40 kg/m². Can be recoated after approx. 45 min.

Triflex Glass Primer

Wipe up evenly with a cleaning cloth GP.

Volume: approx. 50 ml/m².

Can be recoated after approx. 15 min up to max. 3 hrs.

Triflex Metal Primer

Apply a thin coat with a short-pile roller or, alternatively, spray on a thin coat with a spray can.

Volume: approx. 80 ml/m².

Can be recoated after approx. 30 to 60 min.

Triflex Pox R 100

Apply evenly with a Triflex universal roller.

Dress the fresh primer with a surplus of quartz sand.

Volume of Triflex Pox R 100: at least 0.30 kg/m²,

Volume of quartz sand 0.2–0.6 mm: at least 2.00 kg/m².

Can be recoated after approx. 12 hrs.

Repairing

Triflex Cryl Level 215

Mortar for making sloping screeds with layer thicknesses of 10 mm to 50 mm.

Volume with a minimum layer thickness of 10 mm: approx. 22 kg/m².

Can be recoated after approx. 45 min.

Triflex Cryl RS 240

Mortar for repairing mineral substrates with roughness depths of R_f > 10 mm.

Volume: at least 2.20 kg/m² per mm layer thickness.

Can be recoated after approx. 45 min.

Triflex Cryl Paste

Paste for filling in shrinkage cracks, smaller areas of damage and for levelling out uneven areas and fleece overlaps.

Volume: approx. 1.40 kg/m² per mm layer thickness.

Can be recoated after approx. 1 hr.

Triflex ProFloor

Scratch coat for repairing mineral substrates with the addition of up to

10.00 kg of quartz sand, 0.2–0.6 mm* per 33.00 kg of Triflex ProFloor (3K) or

4.50 kg of quartz sand, 0.2–0.6 mm* per 15.00 kg of Triflex ProFloor RS 2K

Volume: at least 2.00 kg/m² per mm layer thickness.

Can be recoated after approx. 1 hr.

* The quartz sand grading curve must be adjusted on-site, if necessary.



System description

Detail waterproofing

Triflex ProDetail must be applied to all junctions, transitions and other detail solutions before surface waterproofing.

Application is wet-on-wet.

1. Triflex ProDetail

Apply evenly with a radiator roller.

Volume: at least 2.00 kg/m².

2. Triflex Special Fleece

Lay fleece strips, removing any air bubbles.

Overlap the fleece strips by at least 5 cm.

3. Triflex ProDetail

Apply until the Triflex Special Fleece is fully saturated.

Volume: at least 1.00 kg/m².

Total volume of Triflex ProDetail: at least 3.00 kg/m².

Can be recoated after approx. 45 min.

For dimensions, see Triflex BFS system drawings.

Important note:

Special Fleece mouldings can be used instead of Special Fleece cut-outs for inner and outer corners and for pipe penetrations.

Joint waterproofing

All joints must be treated with Triflex ProDetail before surface waterproofing.

To prevent abutting edges, joints should always be embedded in the substrate (see system drawings).

Construction joint:

Application is wet-on-wet.

1. Triflex ProDetail

Apply a width of 16 cm with a radiator roller.

Volume at least 0.30 kg/m.

2. Triflex Special Fleece

Lay a 15 cm wide fleece strip, removing any air bubbles.

Overlap the ends of the fleece strip by at least 5 cm.

3. Triflex ProDetail

Apply until the Triflex Special Fleece is fully saturated.

Volume at least 0.30 kg/m.

Total volume of Triflex ProDetail: at least 0.60 kg/m.

Can be recoated after approx. 45 min.

See Triflex BFS system drawings for dimensions.

Important note:

In the area of the construction joint, tape over the surface coating and the "Dressing, fine" and "Dressing, coarse" surfaces with approx. 2.5 cm wide adhesive tape. Prior to applying the finish, level the joint flush with Triflex ProDetail.

Settlement joint:

1. Triflex Cryl Paste

Apply a width of approx. 4 cm to both sides of the joint to bond the Triflex Support Strip.

2. Triflex Support Strip

Insert in the joint as a loop.

Can be recoated after approx. 1 hr.

3. Triflex Special Fleece

Insert two fleece strips, each 20 cm wide, saturated with Triflex ProDetail as a double loop, making sure there are no air bubbles.

Can be recoated after approx. 45 min.

4. PE round sealing band

Place in the joint.

5. Triflex ProDetail

Seal the joint so it is flush with the surface.

Total volume of Triflex ProDetail: at least 1.20 kg/m.

Can be recoated after approx. 45 min.

For dimensions see Triflex BFS system drawings.

Important note:

In the area of the settlement joint, tape over the surface coating and the "Dressing, fine" and "Dressing, coarse" surfaces with at least 5 cm wide adhesive tape. Prior to applying the finish, level the joint flush with Triflex ProDetail.

Surface coating

Standard:

Triflex ProFloor⁽¹⁾

Spread evenly and level out using a squeegee or stainless steel trowel.

Volume: at least 4.00 kg/m².

Can be recoated after approx. 1 hr.

Triflex BFS S1 version (flame-retardant):

Triflex ProFloor S1

Spread evenly and level out using a squeegee or stainless steel trowel.

Volume: at least 4.00 kg/m².

Can be recoated after approx. 1 hr.

Important note:

In the area of the construction joint, tape over the surface coating with approx. 2.5 cm wide adhesive tape. In the area of the settlement joint, tape over the surface coating with at least 5 cm wide adhesive tape.

⁽¹⁾ Triflex ProFloor (3K) or Triflex ProFloor RS 2K



System description

Finish

The sealing of all vertical junctions, transitions and details must be carried out prior to the surface finishing with thixotropic Triflex Cryl Finish 205. The product is thickened by the in-situ addition of 1 wt. % Triflex Liquid Thixo.

"Chips Design" (R 9) surface:

1. Triflex Cryl Finish 205 / Triflex Cryl Finish S1⁽²⁾

Cross-coat evenly using a Triflex finish roller.

Volume: at least 0.50 kg/m².

2. Triflex Micro Chips

Blow into the wet finish using a funnel spray gun.

Volume: at least 0.05 kg/m².

Can be walked on after approx. 2 hrs.

"Colour Design" (R 10) surface:

Not suitable for the Triflex BFS S1 version (flame-retardant).

1. Triflex Cryl Finish 205

Cross-coat evenly using a Triflex finish roller.

Volume: at least 0.50 kg/m².

2. Triflex Colour Mix

Use a funnel spray gun with special attachment to apply generously and evenly with surplus to the wet finish.

Once the finish is cured (approx. 2 hrs at 20 °C), carefully remove any surplus and wait for another hour.

Volume at least 0.80 to 1.00 kg/m².

3. Triflex Cryl Finish Satin

Cross-coat the dressed surface evenly using a Triflex finish roller.

Volume: at least 0.35 kg/m².

Can be walked on after approx. 2 hrs.

Important note:

1. Once Triflex Cryl Finish 205 and Triflex Colour Mix have been applied, it is essential to ensure that the surface is kept free of contaminants (e.g., from dirty footwear or tools).
2. Protect the surface from all types of precipitation during the entire procedure. If weather conditions are unpredictable, the surface should be adequately covered.
3. Any load on the surface by objects (e.g., flower pots, parasol bases, doormats, etc.) must be avoided for at least 7 days following completion.

"Creative Design" surface:

For creative surface design with colours and patterns, see Triflex Creative Design.

"Dressing, fine" (R 11) surface:

1. Triflex Cryl Finish 205 / Triflex Cryl Finish S1⁽²⁾

Cross-coat evenly using a Triflex finish roller.

Volume: at least 0.50 kg/m².

2. Quartz sand, size 0.2–0.6 mm

Dress the fresh finish with a surplus of quartz sand.

Once the finish is cured, remove any surplus.

Volume: at least 3.00 kg/m².

Can be recoated after approx. 1 hr.

3. Triflex Cryl Finish 205 / Triflex Cryl Finish S1⁽²⁾

Cross-coat finish evenly using a Triflex finish roller.

Volume: at least 0.70 kg/m².

4. Triflex Micro Chips

Blow into the wet finish using a funnel spray gun.

Volume: at least 0.05 kg/m².

Total volume Triflex Cryl Finish 205 / Triflex Cryl Finish S1⁽²⁾

at least 1.20 kg/m².

Can be walked on after approx. 2 hrs.

Important note:

- In the area of the construction joint, tape over the finish layer (1.) including the quartz sand dressing (2.) with approx. 2.5 cm wide adhesive tape.
- In the area of the settlement joint, tape over the finish layer (1.) including the quartz sand dressing (2.) with at least 5 cm wide adhesive tape. Once cured, the joints are levelled flush with Triflex ProDetail. The finish layer (3.) with Micro Chips dressing (4.) is applied over the joints.

"Dressing, coarse" (R 12) surface:

1. Quartz sand, size 0.7–1.2 mm

In areas with increased risk of slipping, dress the fresh wearing layer with a surplus of quartz sand.

Once the wearing layer is cured, remove any surplus.

Volume: at least 7.00 kg/m².

Can be recoated after approx. 1 hr.

2. Triflex Cryl Finish 205 / Triflex Cryl Finish S1⁽²⁾

Cross-coat finish evenly using a Triflex finish roller.

Volume: at least 0.70 kg/m².

3. Triflex Micro Chips

Blow into the wet finish using a funnel spray gun.

Volume: at least 0.05 kg/m².

Can be walked on after approx. 2 hrs.

Important note:

- In the area of the construction joint, tape over the quartz sand dressing (1.) with approx. 2.5 cm wide adhesive tape.
- In the area of the settlement joint, tape over the quartz sand dressing (1.) with at least 5 cm adhesive tape.
- Once cured, the joints are levelled flush with Triflex ProDetail.
- The finish layer (2.) with Micro Chips dressing (3.) is applied over the joints.

⁽²⁾ for the Triflex BFS S1 version (flame-retardant)



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 min.

Transitions to subsequent junctions, transitions and detail solutions with Triflex ProDetail must overlap (including Triflex Special Fleece) by a minimum of 10 cm. 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 for use and instructions for mixing, see product information (request if necessary):

Triflex Cleaner
Triflex Colour Mix
Triflex Cryl Finish Satin
Triflex Cryl Finish 205
Triflex Cryl Finish S1
Triflex Cryl Level 215
Triflex Cryl Paste
Triflex Cryl Primer 222
Triflex Cryl Primer 276
Triflex Cryl RS 240
Triflex Glass Primer

Triflex Liquid Thixo
Triflex Metal Primer
Triflex Micro Chips
Triflex Pox R 100
Triflex ProDetail
Triflex ProFloor⁽¹⁾
Triflex ProFloor S1
Triflex Special Fleece
Triflex Support Strip
Balcony edge finishing profile

Quality standard

All Triflex products are manufactured in accordance with the standards defined in ISO 9001. To ensure quality is not compromised, Triflex products are only installed by specialist, fully trained and qualified contractors.

Gradient / Evenness

Before commencing any surfacing work and during the work itself, it is essential to ensure the correct gradient and evenness of the substrate. Any corrections required must be taken into account during this work.

Dimensional tolerances

When carrying out surfacing work, always ensure compliance with the permissible tolerances for building construction (DIN 18202, Table 3, line 4).

Safety tips / Accident prevention

Read the safety data sheets before using the products.

Required volumes / Waiting times

The specified volumes apply only to smooth, even surfaces. Special allowances must be made for unevenness, roughness and porosity.

Information regarding airing and waiting times applies to a substrate at an ambient temperature of +20 °C.

General notes

The basis for the use of Triflex products can be found in the system descriptions, system drawings and product information sheets. It is essential to heed these when planning and carrying out the building project. Departures from the technical information of Triflex GmbH & Co. KG applicable at the time of work can compromise the guarantee. Any project-related departures are subject to the written authorisation of Triflex.

All data 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 user is required to test the suitability, e.g., of the substrate.

Non-system substances must not be added to Triflex products. Subject to change in the interests of technical advancement or enhancement of Triflex products.

Tender texts

Please visit the download section of the Triflex website at www.triflex.com to obtain the current standard specifications for tender, which are available in a range of different file formats.

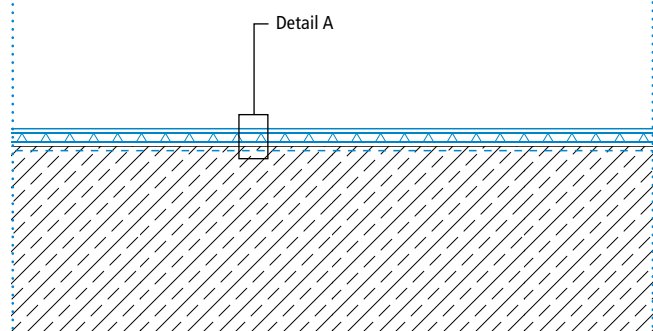
CAD drawings

All CAD system drawings can be downloaded free of charge from the download section of the Triflex website www.triflex.com.

⁽¹⁾ Triflex ProFloor (3K) or Triflex ProFloor RS 2K

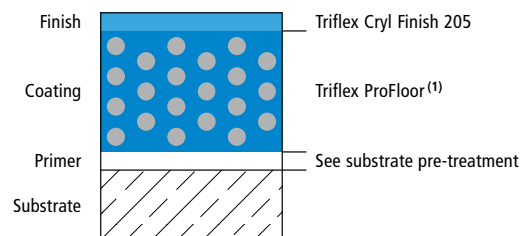
System drawings

Surface – standard

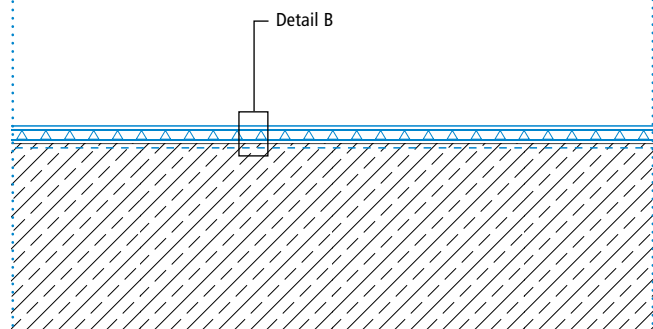


Drawing no.: BFS-2301

System design – Detail A

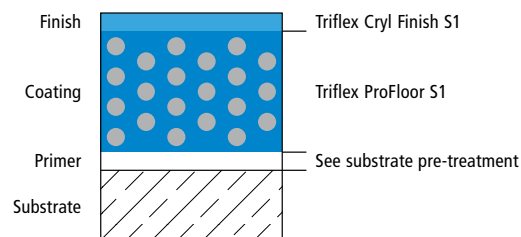


Surface – S1 version (flame-retardant)



Drawing no.: BFS-2302

System design, S1 version – Detail B

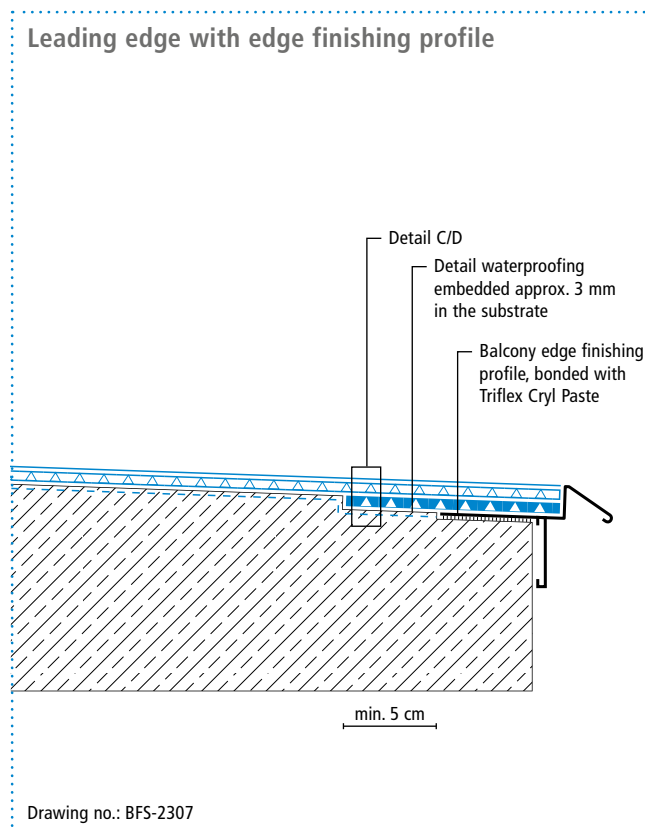
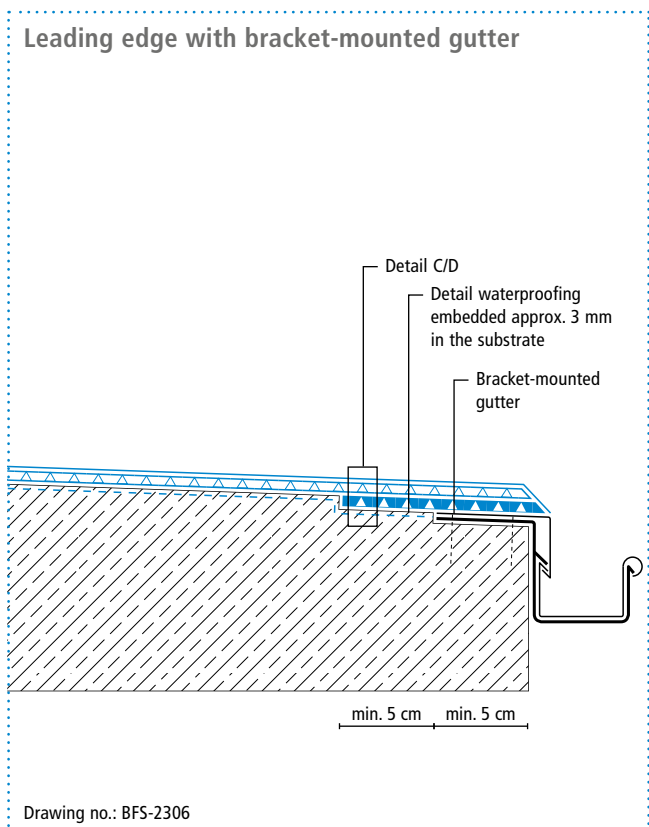
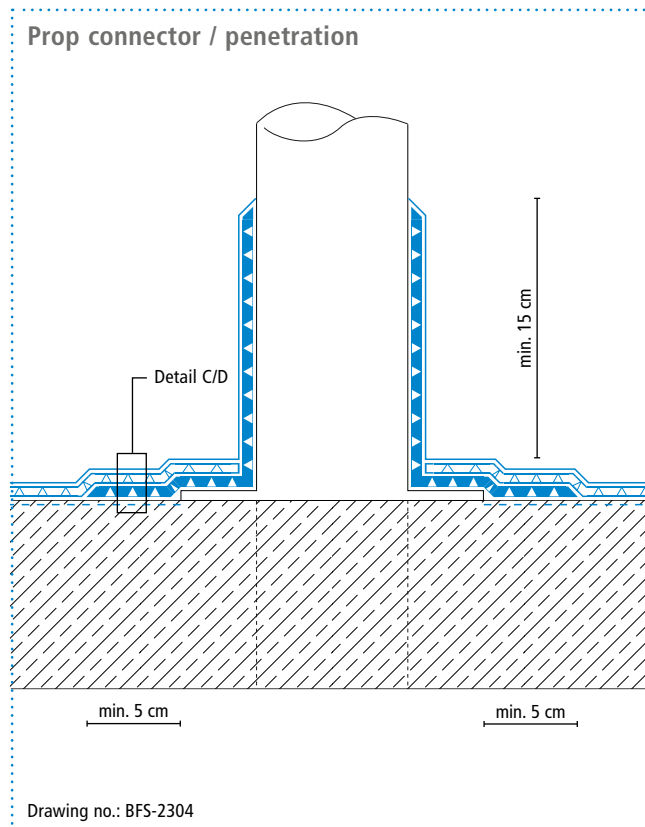
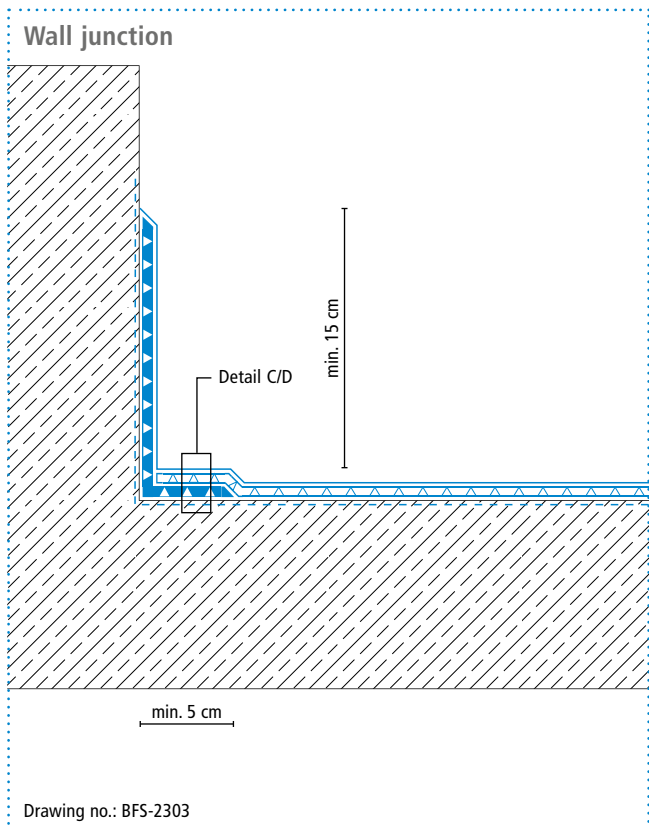


Height differences between fleece overlaps are exaggerated.

⁽¹⁾ Triflex ProFloor (3K) or Triflex ProFloor RS 2K



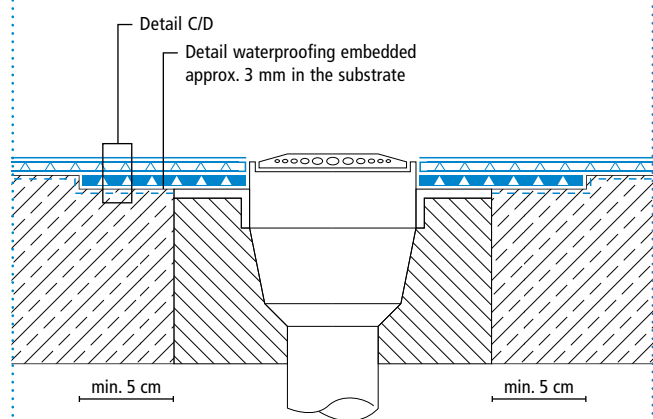
System drawings



Height differences between fleece overlaps are exaggerated.

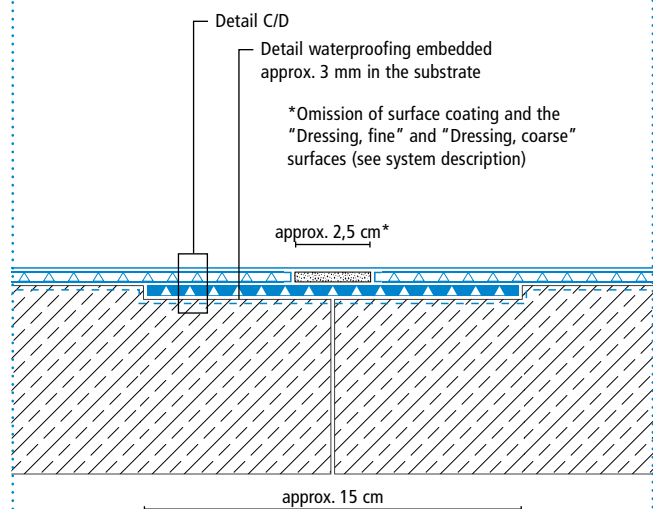
System drawings

Gully



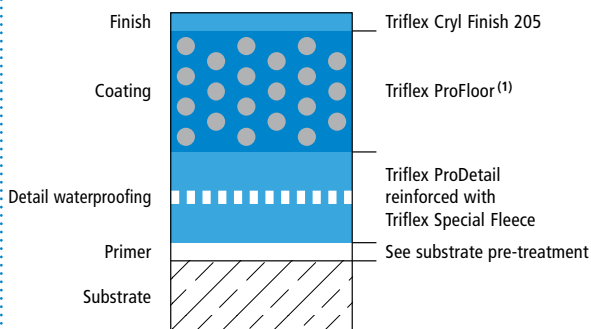
Drawing no.: BFS-2305

Construction joint

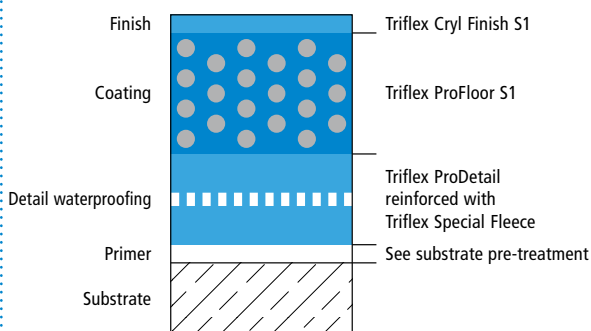


Drawing no.: BFS-2308

System design – Detail C



System design, S1 version – Detail D

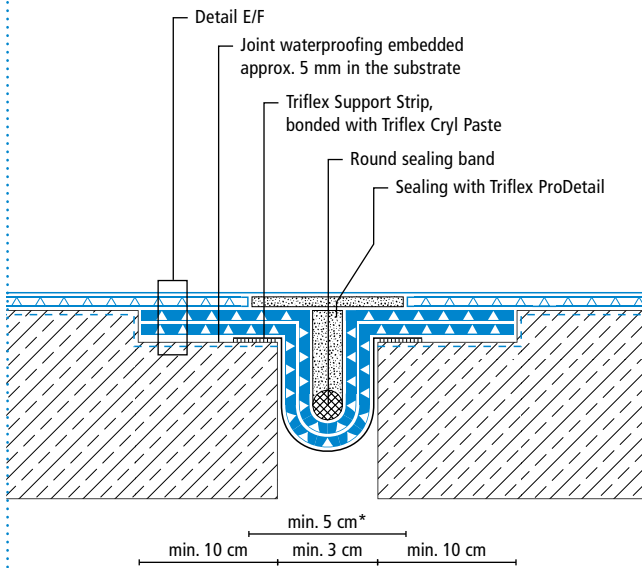


Height differences between fleece overlaps are exaggerated.

⁽¹⁾ Triflex ProFloor (3K) or Triflex ProFloor RS 2K

System drawings

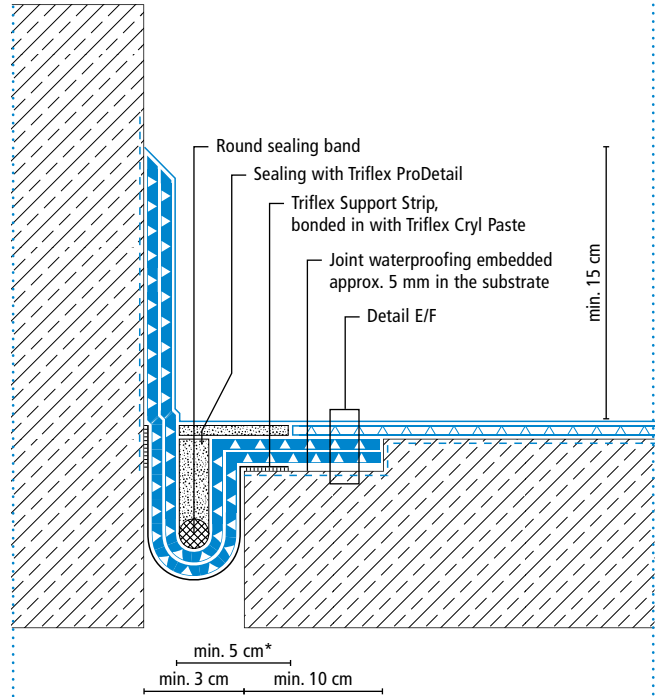
Settlement joint surface



* Omission of surface coating (see system description)

Drawing no.: BFS-2309

Settlement joint – wall junction



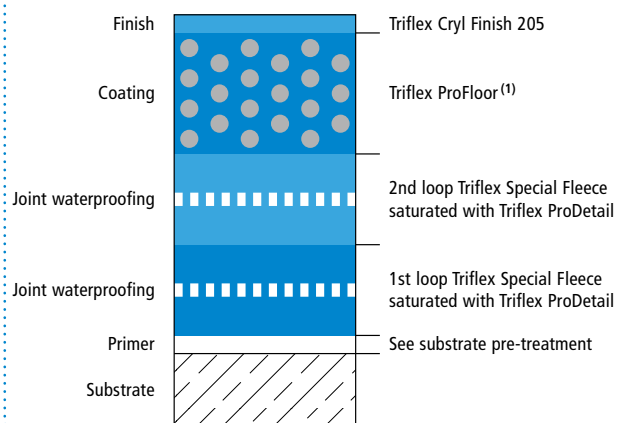
* Omission of surface coating (see system description)

Drawing no.: BFS-2310

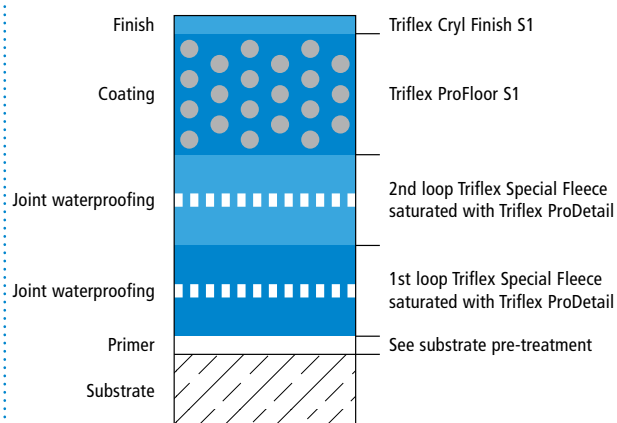


System drawings

System design – Detail E



System design, S1 version – Detail F



⁽¹⁾ Triflex ProFloor (3K) or Triflex ProFloor RS 2K



Balcony flooring system

Triflex BFS

Range of colours

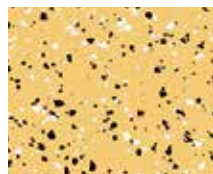
"Triflex Chips Design" surface



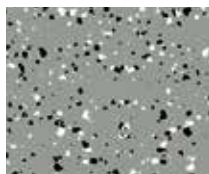


Range of colours

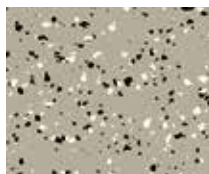
"Triflex Chips Design" surface – S1 version (flame-retardant)



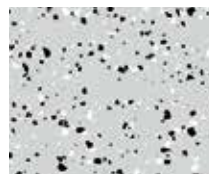
2053 Amber 02



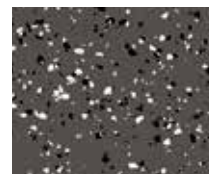
7030 Quartz 03



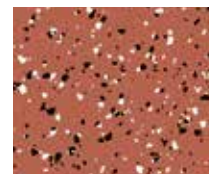
7032 Quartz 02



7035 Quartz 01



7043 Slate 03



8081 Ruby 01

"Triflex Colour Design" surface



A719 Grey



A720 Blue



A721 Grey blue



A722 Grey green



A724 Red orange



A727 Cream beige



A728 Anthracite grey



A729 Stone Red

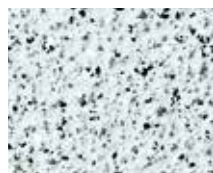
"Dressing, fine" surface



Dressing, fine

Additional flame-dried quartz sand dressing provides a non-slip finish.
For available colours, see
"Triflex Chips Design"

"Dressing, coarse" surface



Dressing, coarse

Coarse quartz sand dressing is particularly recommended for stairs and slanted surfaces.
For available colours, see
"Triflex Chips Design"

Please note:

All surfaces are displayed on a scale of 1:2.
Minor variations between the colour shown here and the actual colour are due to printing technology and the materials used.



Delivering solutions together.



International

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