

Planning documents
Interior deck coating system (OS 11b)

Triflex CPS-I+





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Applications



Complete solutions down to the smallest detail

OS 11b coatings for interior parking decks must withstand mechanical loads as well as condensation and de-icing salt carried into the building. It is therefore not enough just to coat the surface if the structure is to have long-term protection.

Triflex systems are detail solutions. Thus, all junctions and joints are reliably waterproofed with the same material in the coating system Triflex CPS-I+.

Triflex CPS-I+ is a coating system with superior dynamic crack-bridging which has been specially designed for interior parking decks with pedestrian and vehicular traffic.



Advantages at a glance

Highly resilient and crack-bridging

The flexible resins give the coating system a level of flexibility that leaves it unaffected by any movement of the foundation.

System-integrated detail solutions

The system design is specially designed with fleece-reinforced detail solutions, in order to guarantee protection down to the smallest detail.

Certified safety

Triflex CPS-I+ is an approved OS 11b system as per the Repair Guideline (Rili SIB) 2001, in accordance with DIN EN 1504-2 / DIN V 18026. It is classified as flame-retardant (B_{fl}-s1) in accordance with DIN EN 13501-1.

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And this is how it's done ...



1. Prepare substrate, prime and dress surface.



2. The details are waterproofed and fleece-reinforced with Triflex Than R 557 thix.



3. Spread the coating Triflex Than RG 568+ ...



4. ... evenly using a toothed squeegee.



5. The wet coating is dressed with quartz sand.



6. The surface is then finished with Triflex Pox Finish 173+.



7. Done!



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.

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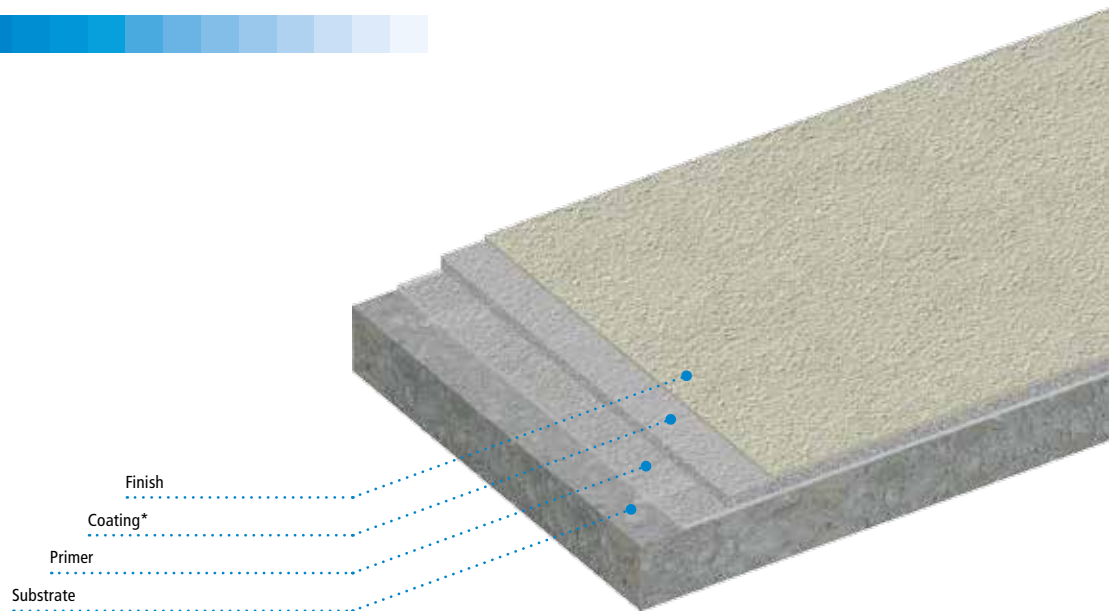


System description

Properties

- OS 11b coating with superior crack bridging for interior surfaces for pedestrian and vehicular traffic
- Single-layer system with a EP/PUR base
- Seamless
- System-integrated detail solutions
- Mechanically strong
- Full-surface adhesion
- Elastic
- Dynamic crack-bridging in accordance with DIN EN 1062-7, Class B 3.2 (-20 °C)
- Cold-applied
- Chemical-resistant
- Non-slip
- Variety of colours available
- Fire classification B_{fl}-s1 in compliance with DIN EN 13501-1
- Meets the requirements of Class OS 11b as per the Repair Guideline (Rili SIB) 2001, in accordance with DIN EN 1504-2 / DIN V 18026

System design



System components

Primer

Triflex Pox Primer 116+ for sealing the substrate and ensuring substrate adhesion (if necessary, see table substrate pre-treatment).

Coating*

Triflex Than RG 568+ as crack-bridging wearing/dressing layer.

Finish

Triflex Pox Finish 173+ as coloured top finish.

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. The substrate must be pre-treated in accordance with the specifications in the Repair Guideline (Rili SIB). The following volume specifications apply to a roughness depth of $R_f = 0.5$ mm.

Moisture: When carrying out coating work, the substrate moisture must not exceed 4 % 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 minimum tensile adhesion strengths must be met on pre-treated test areas:

Concrete: in the centre, at least 1.5 N/mm², individual value not less than 1.0 N/mm².

* **Please note:** Term under "German Committee on Reinforced Concrete (DAfStb.) – Guidelines for the protection and repair of concrete components" = primarily effective surface protection layer

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System description

Substrate pre-treatment

Substrate	Pre-treatment	Primer
Aluminium ⁽¹⁾	Abrade with Triflex Cleaner, roughen surface	No primer ⁽²⁾
Asphalt		Not possible
Composite thermal insulation systems ⁽¹⁾		Triflex Pox Primer 116+
Concrete	Grinding, milling or dust-free shot-blasting	Triflex Pox Primer 116+
Concrete, below-ground	Grinding, milling or dust-free shot-blasting	Triflex Pox Primer 116+ (2x)
Copper ⁽¹⁾	Abrade with Triflex Cleaner, roughen surface	No primer ⁽²⁾
Epoxy resin coating	Roughen surface, adhesion and compatibility test	No primer
Glass ⁽¹⁾	Abrade with Triflex Cleaner, roughen surface, adhesion test	No primer
Lightweight concrete ⁽¹⁾		Triflex Pox Primer 116+
Mortar, resin-modified	Grinding, milling or dust-free shot-blasting; adhesion and compatibility test	Triflex Pox Primer 116+
Paints	Grinding or milling, completely remove	See substrate
Plaster/masonry ⁽¹⁾		Triflex Pox Primer 116+
PU coating	Roughen surface, adhesion and compatibility test	No primer
PVC moulded components, hard ⁽¹⁾	Abrade with Triflex Cleaner, roughen surface	No primer
Screeds	Grinding, milling or dust-free shot-blasting	Triflex Pox Primer 116+
Stainless steel ⁽¹⁾	Abrade with Triflex Cleaner, roughen surface	No primer ⁽²⁾
Steel, galvanised ⁽¹⁾	Abrade with Triflex Cleaner, roughen surface	No primer ⁽²⁾
Tiles	Mechanically remove glaze	Triflex Pox Primer 116+
Wood ⁽¹⁾	Remove paints	Triflex Pox Primer 116+
Zinc ⁽¹⁾	Abrade with Triflex Cleaner, roughen surface	No primer ⁽²⁾

⁽¹⁾ Only in areas not subject to high mechanical stress, e.g., details and flashing.

⁽²⁾ 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:

Adhesion to the substrate must be checked on a case-by-case basis!

Primer

Details and junctions:

Important note:

Additional priming is required on highly absorbent substrates and with substrate moistures of between 4 to 6 % by weight.

Triflex Pox Primer 116+

Apply evenly with a Triflex universal roller.

Volume at least 0.50 kg/m² (unfilled/non-dressed)

Can be recoated after approx. 12 hrs up to max. 24 hrs.

1. Triflex Pox Primer 116+

Apply evenly with a Triflex universal roller.

Volume: at least 0.30 kg/m².

2. Quartz sand, size 0.3–0.8 mm

Dress the fresh primer – not in excess.

Volume: at least 1.00 kg/m².

Can be recoated after approx. 12 hrs up to max. 24 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.

Surfaces:

Important note:

Additional priming is required on highly absorbent substrates and with substrate moistures of between 4 to 6 % by weight:

Triflex Pox Primer 116+

Pour on thickly and spread evenly using a cellular rubber spreader. Then recoat using a Triflex universal roller.

Do not allow puddles to form.

Volume at least 0.50 kg/m² (unfilled/non-dressed)

Can be recoated after approx. 12 hrs up to max. 24 hrs.

1. Triflex Pox Primer 116+

Pour on thickly and spread evenly using a cellular rubber spreader. Then recoat using a Triflex universal roller.

Do not allow puddles to form.

Volume: at least 0.30 kg/m².

2. Quartz sand, size 0.3–0.8 mm

Dress the fresh primer – not in excess.

Volume: at least 0.70 kg/m².

Can be recoated after approx. 12 hrs up to max. 24 hrs.

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System description

Repairing

The mixing ratio specifications apply for a temperature range of around 20 °C. Depending on the application temperature and if using different grain shapes, we recommend carrying out preliminary tests in order to determine the mixing ratio.

Scratch coat:

Roughness depth levelling R_f 0.5 to 1.5 mm.

Triflex Pox Primer 116+

1.00 kg of Triflex Pox Primer 116+ is mixed with 0.50 kg of quartz sand 0.1–0.4 mm.

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

Can be recoated after approx. 12 hrs up to max. 24 hrs.

Levelling coat:

Roughness depth levelling R_f 2.0 to 3.0 mm.

Triflex Pox Primer 116+

1.00 kg of Triflex Pox Primer 116+ is mixed with 0.70 kg of quartz sand 0.1–0.4 mm and 0.30 kg of quartz sand 0.3–0.8 mm

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

Can be recoated after approx. 12 hrs up to max. 24 hrs.

Mortar:

For levelling large areas of damage.

Triflex Pox Mortar

See product information for mixing ratio and grading curve.

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

Can be recoated after approx. 12 hrs up to max. 24 hrs.

Detail waterproofing

All junctions and transitions and other detail solutions must be completed with Triflex Than R 557 thix prior to coating the surface.

Application is wet-on-wet.

1. Triflex Than R 557 thix

Apply evenly with a radiator roller.

Volume: at least 2.00 kg/m².

2. Triflex Special Fleece

Lay strips, removing any air bubbles.

Overlap the fleece strips by at least 5 cm.

3. Triflex Than R 557 thix

Apply until the Triflex Special Fleece is fully saturated.

Volume: at least 1.00 kg/m².

Total volume of Triflex Than R 557 thix at least 3.00 kg/m².

Can be recoated after approx. 7 hrs up to max. 1 day.

For dimensions, see Triflex CPS-I + system drawings.



System description

Joint waterproofing

All joints must be completed with Triflex Than R 557 thix prior to coating the surface. To prevent abutting edges, joints should always be embedded in the substrate (see system drawings).

Construction joint:

Points 1 to 3 are completed wet-on-wet.

1. Triflex Than R 557 thix

Apply a width of 16 cm with a radiator roller.
Volume at least 0.30 kg/m.

2. Triflex Special Fleece

Insert a 15 cm wide strip, removing any air bubbles.
Overlap the ends of the fleece by at least 5 cm.

3. Triflex Than R 557 thix

Apply until the Triflex Special Fleece is fully saturated.
Volume at least 0.30 kg/m.

Can be recoated after approx. 7 hrs up to max. 1 day.

Total volume Triflex Than R 557 thix at least 0.60 kg/m.

After application of the coating and the finish.

4. Triflex Than RG 568+

Remove the omission of the approx. 2.5 cm wide joint so that it is flush.
Volume: approx. 2.20 kg/m² per mm layer thickness.

Can be recoated after approx. 9 hrs up to max. 2 days.

For dimensions, see Triflex CPS-I+ system drawings.

Important note:

The centre of the construction joint is taped off with 2.5 cm wide adhesive tape for the subsequent layers so that the joint remains omitted.

All further layers are only taken to the edge of the joint.

Prior to curing the layer, the adhesive tape must be removed and new tape applied for each further layer.

Settlement joint:

Joints subject to normal mechanical stress.

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

Lay in the joint as a loop.

Can be recoated after approx. 1 hr.

Points 3 to 7 are completed wet-on-wet.

3. Triflex Than R 557 thix

Apply to both sides of the joint and on the Triflex support strip using a radiator roller.
Volume at least 0.70 kg/m.

4. Triflex Special Fleece

Lay a 35 cm wide strip as the first loop, making sure there are no air bubbles.
Overlap the ends of the fleece by at least 5 cm.

5. Triflex Than R 557 thix

Apply to completely saturate the Triflex Special Fleece and as a preliminary layer for the next fleece loop.
Volume at least 0.70 kg/m.

6. Triflex Special Fleece

Lay a 35 cm wide strip as the second loop, making sure that there are no air bubbles.
Overlap the ends of the fleece by at least 5 cm.

7. Triflex Than R 557 thix

Apply until the Triflex Special Fleece is fully saturated.
Volume at least 0.70 kg/m.

Can be recoated after approx. 7 hrs up to max. 1 day.

Total volume Triflex Than R 557 thix at least 2.10 kg/m.

After application of the coating and the finish.

8. PE round sealing band

Place in the joint.

9. Triflex FlexFiller

Fill the joint so it is flush with the surface.

Volume: approx. 2.20 kg/m² per mm layer thickness.

Ready for pedestrian and vehicle traffic after approx. 24 hrs.

For dimensions, see Triflex CPS-I+ system drawings.

Important note:

1. The construction joint or settlement joint is taped off with adhesive tape for the subsequent layers so that the joint remains permanently taped off.
All further layers are only taken to the edge of the joint.

Prior to curing the layer, the adhesive tape must be removed and new tape applied for each further layer.

2. The settlement joints are all maintenance joints. For visual reasons, it may be necessary to renew the joint ingress protection after structural movement.

For joints subject to high mechanical stress, see

Triflex ProJoint – Waterproofing System for Expansion Joints.

Triflex CPS-I+



System description

Coating

1. Triflex Than RG 568+

Mix with 30 % quartz sand 0.1–0.4 mm and apply evenly using a toothed squeegee.

Volume of Triflex Than RG 568+: at least 2.00 kg/m².

Volume of quartz sand 0.1–0.4 mm: at least 0.60 kg/m².

2. Quartz sand, size 0.3–0.8 mm

Dress the wet coating in excess.

Once the coating is cured, remove any surplus.

Volume: approx. 7.00 kg/m².

Can be recoated after approx. 18 hrs up to max. 36 hrs.

For dimensions, see Triflex CPS-I+ system drawings.

Important note:

The coating is omitted in the area of the construction and settlement joints.

Finish

The sealing of all vertical junctions, transitions and details must be carried out prior to the surface finishing with thixotropic Triflex Pox Finish 173+.

The product is thickened by the in-situ addition of 2.5 wt.-% Triflex Powder Thixo.

Triflex Pox Finish 173+

Pour on thickly and spread evenly using a cellular rubber spreader.

Then cross-coat using a Triflex universal roller.

Do not allow puddles to form.

Volume: at least 0.60 kg/m².

Ready for pedestrian traffic after approx. 20 hrs,

ready for vehicle traffic after approx. 2 days.

Important note:

The finish is omitted in the area of the construction and settlement joints.

Collision protection

To protect against mechanical damage, the waterproofing should be protected in risk areas (e.g., kerbs, thresholds and joints) by stainless steel cover plates.

1. Triflex Cleaner

Degrease plates and roughen the underside.*

2. Triflex Cryl Paste

Cover the entire underside of the plate with Triflex Cryl Paste.

3. Cover plate

Stick into place and remove surplus paste with a trowel, secure mechanically if necessary

Volume of Triflex Cryl Paste: at least 0.50 kg/m².

Can be subject to loads after approx. 45 min.

Work interruptions

If work is interrupted for longer than the indicated time, or soiled by rain etc., the surface must be abraded to ensure intermediate adhesion.

Transitions to subsequent waterproofing must overlap

(incl. Triflex Special Fleece) by a minimum of 10 cm. This also applies to junctions and detail solutions.

System components

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

[Triflex Cleaner](#)

[Triflex Cryl Paste](#)

[Triflex FlexFiller](#)

[Triflex Metal Primer](#)

[Triflex Powder Thixo](#)

[Triflex Pox Finish 173+](#)

[Triflex Pox Mortar](#)

[Triflex Pox R 116+](#)

[Triflex Special Fleece](#)

[Triflex Than R 557 thix](#)

[Triflex Than RG 568+](#)

* Alternative to roughening: Abrade with Triflex Cleaner, prime with Triflex Metal Primer.

Triflex CPS-I+



System description

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 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 the 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 substrates with a roughness depth of max. $R_T = 0.5$ mm. 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.

Application notes

The temperature at which components are mixed should be between +15 and +25 °C. If the mixing temperature is below +15 °C, product viscosity increases. This can result in the use of a greater volume of finish and have a negative effect on the non-slip class. The substrate temperature is also crucial.

In low temperatures, the chemical reaction slows down; i.e. application and recoating times are increased, and there is a longer wait before the finish is ready for pedestrian and vehicular traffic. In high temperatures the reverse applies.

The mixing specifications apply to guide formulations at 20 °C. We recommend carrying out preliminary tests depending on the application temperature.

The applied PUR/EP material (primer/coating/finish) must also be protected against direct water contact for approx. 24 hrs at +20 °C. Within the first 24 hrs, water in the surface may cause the material to foam up.

In the case of EP finishes, water in the surface during the first 36 hrs at +15 °C may cause stickiness and/or carbamate formation (white discolouration), which can severely compromise the properties of the deck coating. The system may have to be removed and redone.

The max. relative humidity is 80 %.

Driving lane coatings are subject to constant loads and stresses in accordance with the level of use. The effects of UV light and weather as well as organic dyes (e.g., foliage) and various chemicals (e.g., disinfectants, acids, etc.) may cause discolouration, yellowing and chalking effects in finishes. Abrasion can scratch the surface. This does not affect the mechanical properties of the cured coating.



Interior deck coating system (OS 11b)

Triflex CPS-I+

System description

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 documentation 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

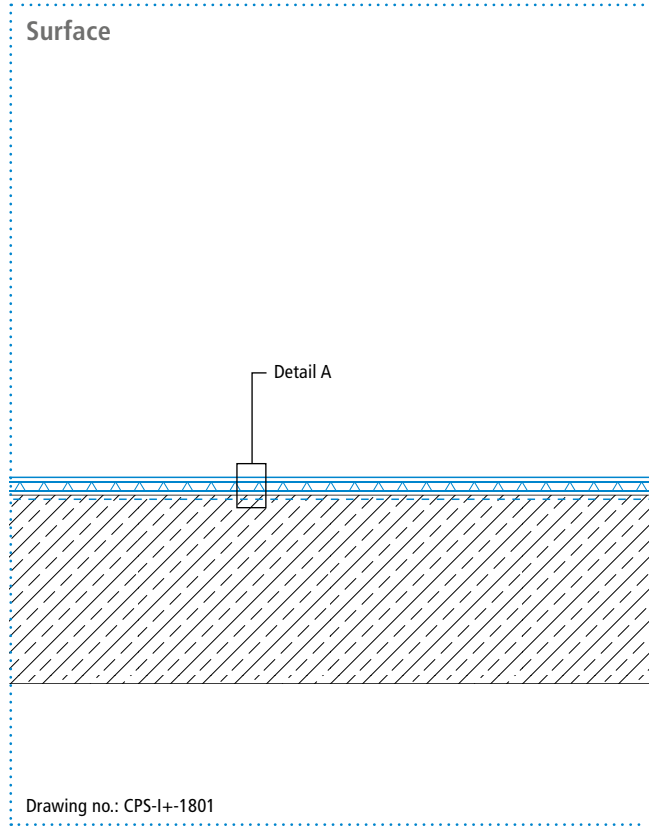
All CAD system drawings can be downloaded free of charge from the download section of the Triflex website at www.triflex.com.



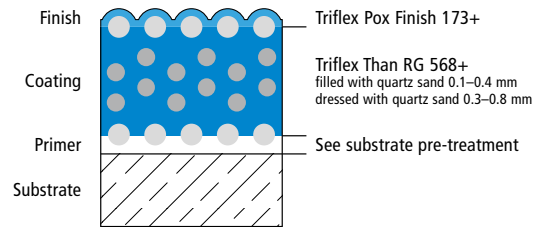
Interior deck coating system (OS 11b)

Triflex CPS-I+

System drawings



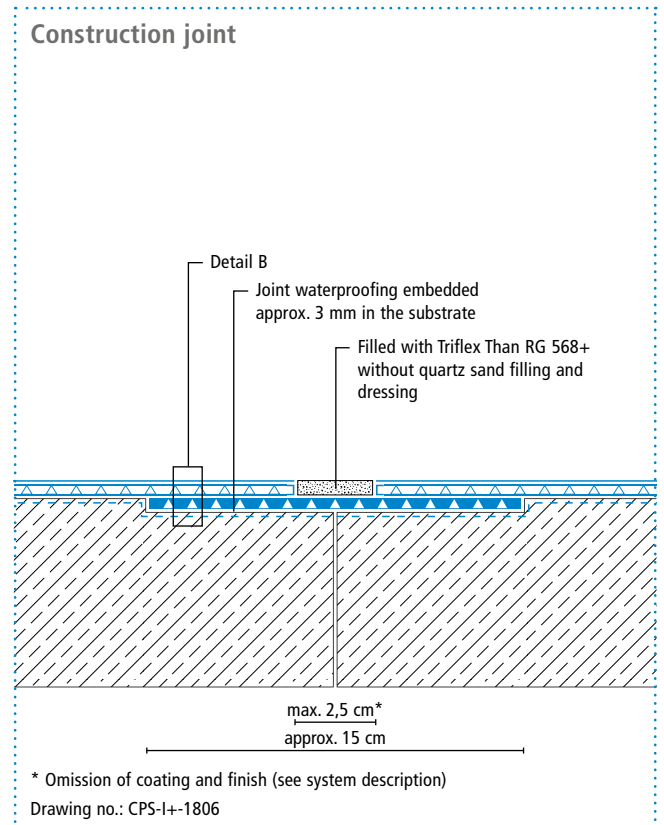
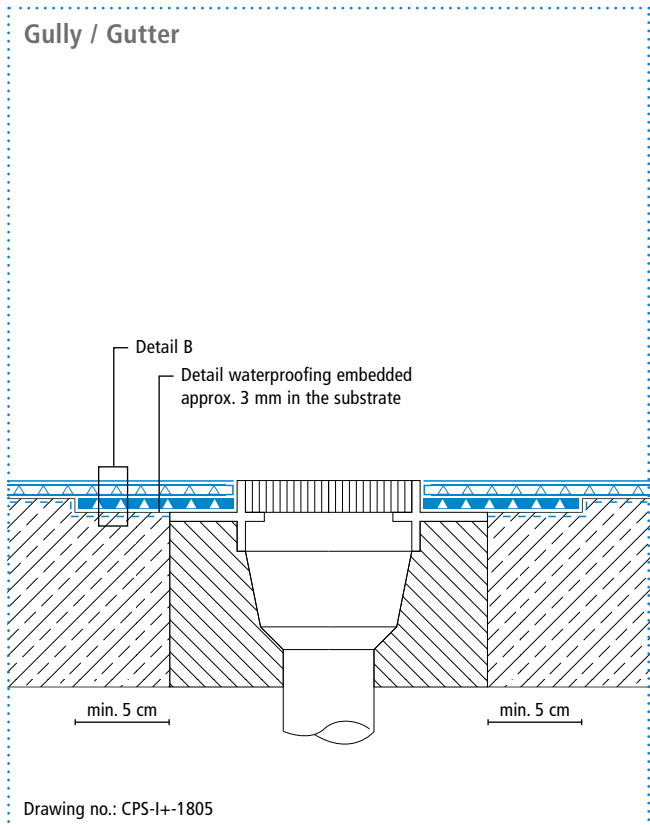
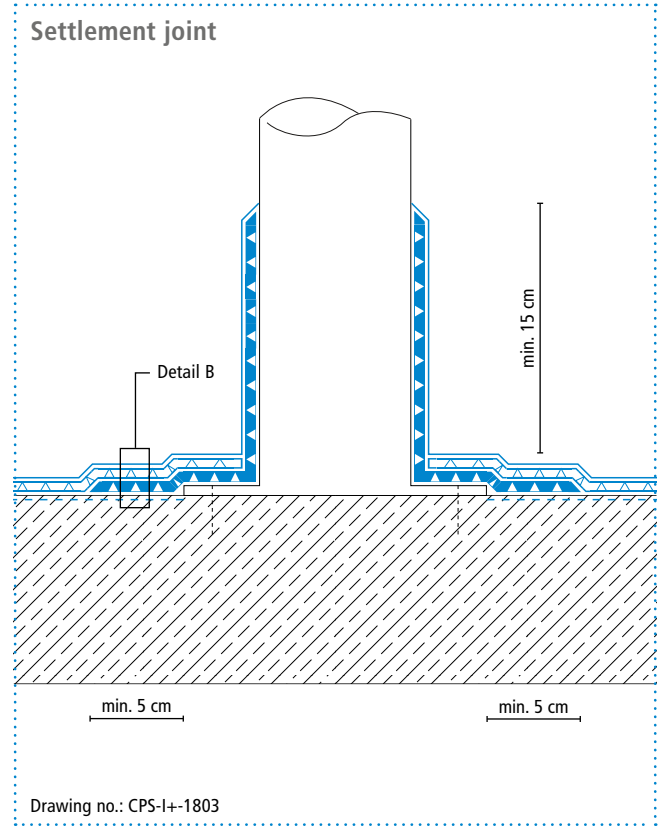
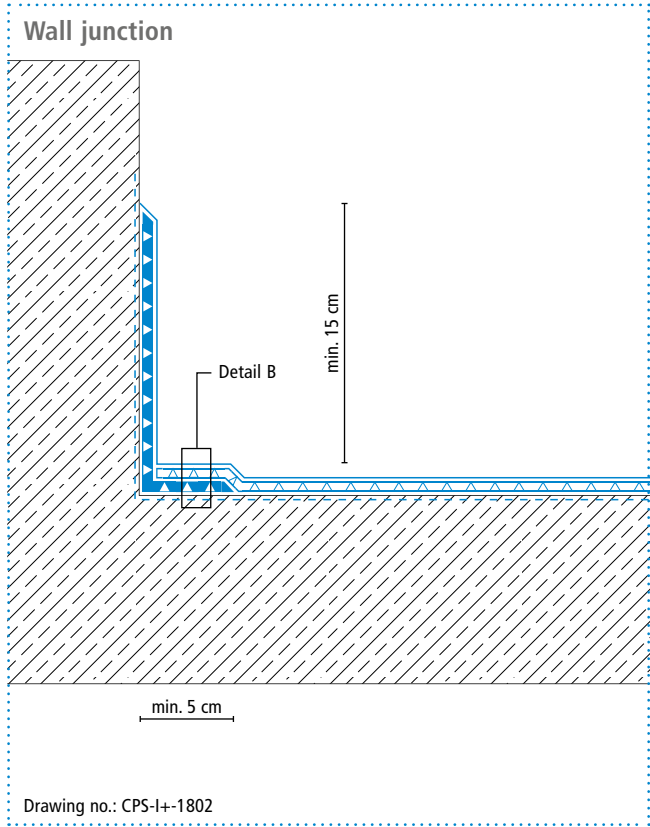
System design – Detail A



Triflex CPS-I+



System drawings

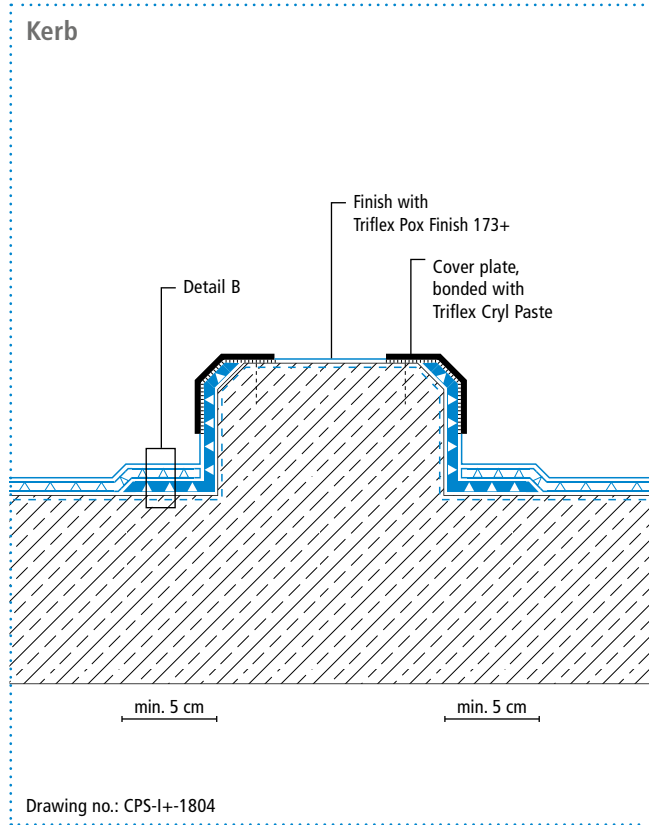


Height differences between fleece overlaps are exaggerated.

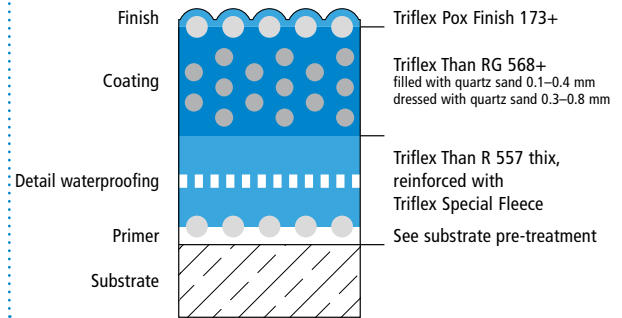
Triflex CPS-I+



System drawings



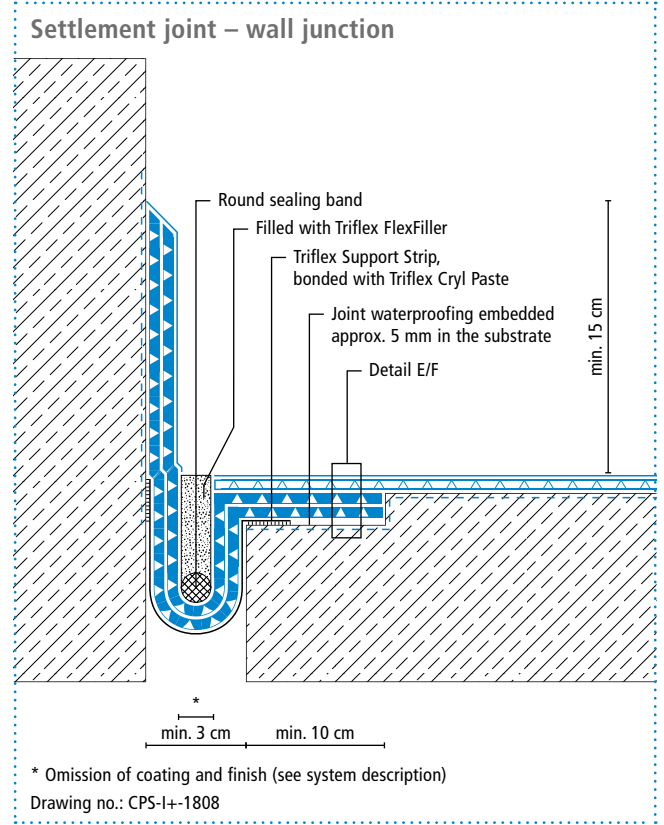
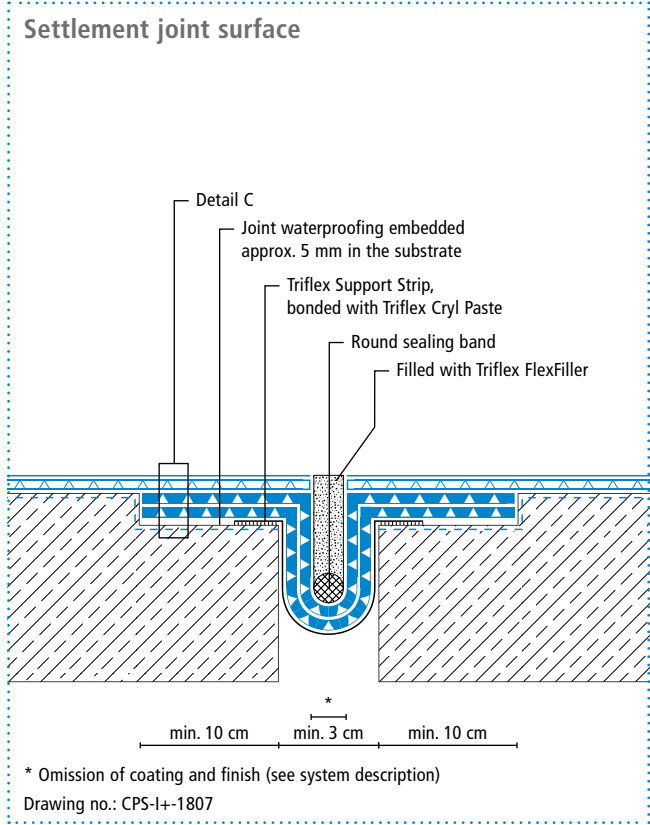
System design – Detail B



Triflex CPS-I+



System drawings

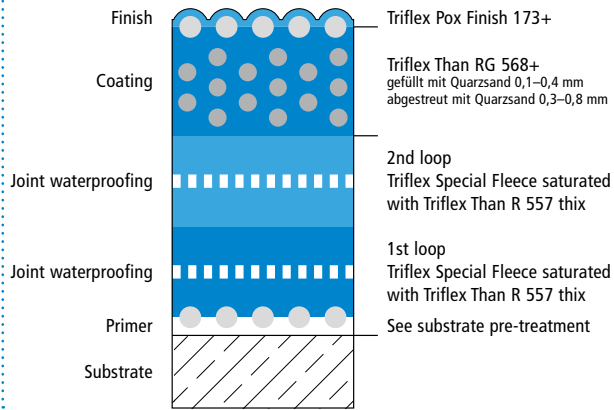


Triflex CPS-I+



System drawings

System design – Detail C



Triflex CPS-I+ surfaces



7032 Pebble grey (Triflex Pox Finish 173+)

Please note:

Minor variations between the colour shown here and the actual colour are due to printing technology and the materials used.



International

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