

Planning documents

Interior deck coating system (OS 8)

## Triflex CPS-F





Interior deck coating system (OS 8)

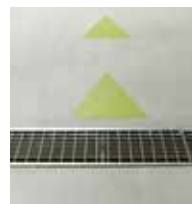
# Triflex CPS-F

## Applications



### Tailored solution

Triflex CPS-F offers cost-effective protection for car park operators. The coating system provides increased slip resistance and, at the same time, makes surfaces easier to clean. The tested OS 8 system also has flexible crack-bridging properties.



**Triflex CPS-F** is a polyurethane (PUR) and epoxy resin (EP) based watertight coating system. This system has been specially developed for inner decks and underground car parks, and offers an enhanced non-slip finish. Junctions, joints and details are carried out as fleece reinforced waterproofing.



## Advantages at a glance

### Easy to clean

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

### System-integrated detail solutions

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

### High-performance

The flexible system build-up achieves a structural crack bridging level of class A3 (according to DIN EN 1062-7) with  $>0.5$  mm, and more than meets the requirements of an OS 8 system.

### Colours

Triflex CPS-F is available in a range of colours to meet your exact requirements. This facilitates recognition and orientation among car park users and improves traffic safety.

### Certified reliability

The system build-up meets the requirements of Class OS 8 as per the German Committee on Reinforced Concrete's (DAfStb) guideline "Protection and Repair of Concrete Structural Components" (RL SIB) and TR maintenance as per VV TB, Part A, No. A 1.2.3.2.

The system has a fire classification in accordance with DIN EN 13501-1 of  $B_{fl-s1}$ .

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# Triflex CPS-F



And this is how it's done ...



1. Prime junctions and surface with Triflex Pox Primer 116+ ...



2. ... and dress with quartz sand while still wet.



3. Junctions, details and ...



4. ... joints are waterproofed with Triflex Than R 557 thix.



5. Then apply the Triflex Than RG 560 coating ...



6. ... and dress with excessive quartz sand while still wet.



7. The surface is then finished with Triflex Pox Finish 170.



## 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.

# Triflex CPS-F

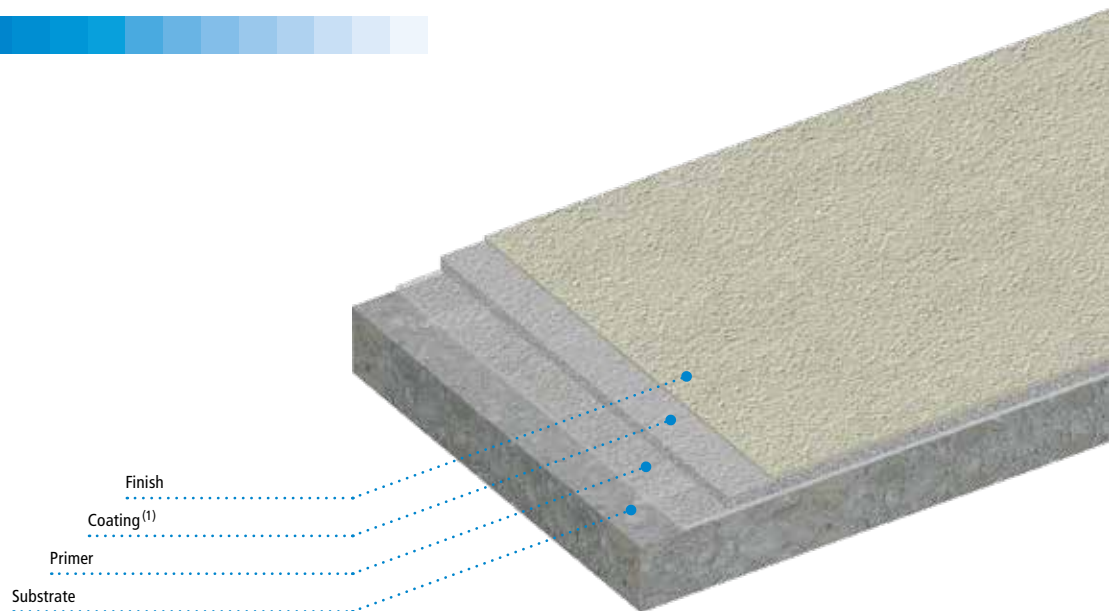


## System description

### Properties

- Watertight polyurethane (PUR) and epoxy resin (EP) coating
- For intermediate decks and underground car parks
- Mechanically strong
- Structural crack bridging class A3 (according to DIN EN 1062-7) >0.5 mm
- Non-slip class R 11 according to DIN 51130
- Solvent-free
- Specially designed for indoor use
- Cold-applied
- Chemical-resistant
- Surface design to specification
- Fire classification B<sub>fl</sub>-s1 in compliance with DIN EN 13501-1
- Meets the requirements of Class OS 8 as per the German Committee on Reinforced Concrete's (DAfStb) guideline "Protection and Repair of Concrete Structural Components" (RL SIB) and TR maintenance as per VV TB, Part A, No. A 1.2.3.2.

### System build-up



### System components

#### Primer

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

#### Coating<sup>(1)</sup>

Triflex Than RG 560 as crack-bridging wearing/dressing layer.

#### Finish

Triflex Pox Finish 170 as a surface finish.

### Substrate

The suitability of the specific substrate should always be tested on a case-by-case basis. The substrate must be clean, dry and free of cement bloom, dust, oil, grease and other adhesion-inhibiting substances. The substrate must be pre-treated in accordance with the specifications in the Repair Guideline (RL SIB). The consumptions specified below assume a surface roughness of  $R_t = 0.5$  mm.

**Moisture:** When carrying out coating work, the substrate moisture must not exceed 4 wt%.

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 allowed to fully harden for at least 28 days.

**Adhesion:** The following minimum tensile adhesion strength of the substrate must be met on pre-treated test areas:

Concrete: at least 1.5 N/mm<sup>2</sup> on average, and no single value below 1.0 N/mm<sup>2</sup>.

<sup>(1)</sup> Designation as per "German Committee on Reinforced Concrete (DAfStb – Guidelines for the protection and repair of concrete components" = primarily effective surface protection layer (hwO)), the DBV leaflet "Multi-storey and underground car parks" and TR maintenance = "elastic surface protective layer (hwO)"

# Triflex CPS-F



## System description

### Substrate pre-treatment

Substrate	Pre-treatment	Primer
Aluminium <sup>(A)</sup>	Abrade with Triflex Cleaner	Triflex Metal Primer <sup>(B)</sup>
Asphalt		Not possible
Composite thermal insulation systems <sup>(A)</sup>	Remove any loose material	Triflex Pox Primer 116+
Concrete	Grinding, milling or dust-free shot-blasting in criss-cross pattern	Triflex Pox Primer 116+
Concrete, below-ground	Grinding, milling or dust-free shot-blasting in criss-cross pattern	Triflex Pox Primer 116+ (2x)
Copper <sup>(A)</sup>	Abrade with Triflex Cleaner	Triflex Metal Primer <sup>(B)</sup>
Epoxy resin coating	Roughen surface and test adhesive strength and compatibility	No primer
Glass <sup>(A)</sup>	Abrade with Triflex Glass Cleaner, adhesive strength test	Triflex Glass Primer
Lightweight concrete <sup>(A)</sup>	Remove any loose material	Triflex Pox Primer 116+
Mortar, resin-modified	Grinding, milling or dust-free shot-blasting executed transversely; adhesive strength and compatibility test	Triflex Pox Primer 116+
Paint	Grinding or milling to remove completely	See substrate
Plaster/masonry <sup>(A)</sup>	Remove any loose material	Triflex Pox Primer 116+
PU coating	Roughen surface and test adhesive strength and compatibility	No primer
PVC mouldings, rigid <sup>(A)</sup>	Abrade with Triflex Cleaner, roughen surface	No primer
Screeds	Grinding, milling or dust-free shot-blasting in criss-cross pattern	Triflex Pox Primer 116+
Stainless steel <sup>(A)</sup>	Abrade with Triflex Cleaner	Triflex Metal Primer <sup>(B)</sup>
Steel, galvanised <sup>(A)</sup>	Abrade with Triflex Cleaner	Triflex Metal Primer <sup>(B)</sup>
Tiles	Mechanically remove glaze	Triflex Pox Primer 116+
Wood <sup>(A)</sup>	Remove any paint	Triflex Pox Primer 116+
Zinc <sup>(A)</sup>	Abrade with Triflex Cleaner	Triflex Metal Primer <sup>(B)</sup>

<sup>(A)</sup> Only areas not subject to high mechanical stress, e.g., details and joints.

<sup>(B)</sup> 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 Glass Primer

Wipe on GP evenly with a cleaning cloth.

Consumption: approx. 0.05 l/m<sup>2</sup>

Can be recoated after approx. 15 mins. to max. 3 hrs.

#### Triflex Metal Primer

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

Consumption: approx. 0.15 l/m<sup>2</sup>.

Can be recoated after approx. 60 mins.

#### Triflex Pox Primer 116+

Pour on thickly and spread evenly using a Triflex cellular rubber spreader. Then spread crosswise using a Triflex universal roller. Do not allow puddles to form. Dress the fresh primer – not to excess.

Consumption of Triflex Pox Primer 116+: at least 0.30 kg/m<sup>2</sup>.

Consumption of quartz sand 0.3–0.8 mm: at least 0.70 kg/m<sup>2</sup>.

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

For highly absorbent substrates and substrate moisture levels of 4 to 6 wt%, an additional layer of primer has to be applied to the surface. Only the second layer is dressed with quartz sand.

Consumption of Triflex Pox Primer 116+: at least 0.30 kg/m<sup>2</sup>.



## 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<sub>r</sub> 0.5–1.5 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.

Consumption: at least 2.20 kg/m<sup>2</sup> per mm layer thickness.

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

#### Levelling coat:

Roughness depth levelling R<sub>r</sub> 2.0–3.0 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.

Consumption: at least 2.20 kg/m<sup>2</sup> per mm layer thickness.

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

#### Mortar:

For levelling large areas of damage.

##### Triflex Pox Mortar

See product information for mixing ratio and grading curve.

Consumption: at least 2.20 kg/m<sup>2</sup> per mm layer thickness.

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

### Detail waterproofing

All junctions, transitions and other detail solutions must be completed before the surface coating is applied.

Application is wet-on-wet.

#### 1. Triflex Than R 557 thix

Apply evenly with a radiator roller.

Consumption: at least 2.00 kg/m<sup>2</sup>.

#### 2. Triflex Special Fleece/Triflex Special Fleece PF<sup>(2)</sup>

Embed cut-outs with no 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.

Consumption: at least 1.00 kg/m<sup>2</sup>.

Total consumption of Triflex Than R 557 thix at least 3.00 kg/m<sup>2</sup>.

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

For dimensions, see Triflex CPS-F system drawings.

<sup>(2)</sup> if necessary, Triflex Special Fleece mouldings





## System description

### Joint waterproofing

All joints must be waterproofed before the surface coating is applied. To prevent abutting edges, joints should always be embedded in the substrate (see system drawings).

#### Construction joint:

Points 1 to 3 below are implemented we-on-wet.

##### 1. Triflex Than R 557 thix

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

##### 2. Triflex Special Fleece/Special Fleece PF

Insert a 15 cm wide strip, making sure there are no 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.  
Consumption: at least 0.70 kg/m.

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

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

After application of the coating and the finish.

##### 4. Triflex Than RG 560

Remove the omission of the approx. 2.5 cm wide joint so that it is flush.  
Consumption: approx. 2.20 kg/m<sup>2</sup> per mm layer thickness.

Ready for pedestrian and vehicle traffic after approx. 3 days.

For dimensions, see Triflex CPS-F system drawings.

#### Important:

The construction joints are 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.

#### Expansion 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 below are implemented we-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.

Consumption: at least 0.70 kg/m.

##### 4. Triflex Special Fleece/Triflex Special Fleece PF

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 fully saturate the Triflex Special Fleece and as a preliminary layer for the next fleece loop.

Consumption: at least 0.70 kg/m.

##### 6. Triflex Special Fleece/Triflex Special Fleece PF

Lay a 35 cm wide strip as the second loop, making sure 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.

Consumption: at least 0.70 kg/m.

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

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

After application of the coating and the finishing.

##### 8. PE round sealing band

Place in the joint.

##### 9. Triflex FlexFiller

Fill the joint so it is flush with the surface.

Consumption: approx. 1.40 kg/m<sup>2</sup> per mm layer thickness.

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

For dimensions, see Triflex CPS-F system drawings.

#### Important:

1. The expansion joints are taped off with adhesive tape for the subsequent layers so that the joint remains permanently 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.

2. The expansion joints are all maintenance joints. For visual reasons, it may be necessary to replace joint ingress protection (Triflex FlexFiller) in case of major structural movements.

# Triflex CPS-F



## System description

### Coating

#### 1. Triflex Than RG 560

Mix with 30 % quartz sand 0.1–0.4 mm, apply evenly with a Triflex squeegee (toothed rubber 6 mm) and cross-coat with a Triflex trowel (straight).

Consumption of Triflex Than RG 560: at least 1.80 kg/m<sup>2</sup>.

Consumption of quartz sand 0.1–0.4 mm: at least 0.70 kg/m<sup>2</sup>.

#### 2. Quartz sand, grain size 0.3–0.8 mm

Dress the wet coating in excess.

Once the coating is cured, remove any surplus.

Consumption: approx. 7.00 kg/m<sup>2</sup>.

Can be recoated after approx. 18 hrs. to max. 48 hrs.

For dimensions, see Triflex CPS-F system drawings.

#### Important:

1. The coating is omitted in the area of the construction and expansion joints.
2. In order to adhere to the consumption quantity with the Triflex trowel, you must pay attention to the wear on the toothed rubber.

### Finishing

The sealing of all vertical junctions, transitions and details must be carried out prior to the surface finishing with thixotropic Triflex Pox Finish 170.

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

#### Triflex Pox Finish 170

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

Do not allow puddles to form.

Consumption: at least 0.50 kg/m<sup>2</sup>.

Ready for pedestrian traffic after approx. 20 hrs., ready for vehicle traffic after approx. 5 days.

#### Important:

1. The finish is omitted in the area of the construction and expansion 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.<sup>(3)</sup>

#### 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.

Consumption of Triflex Cryl Paste: at least 0.50 kg/m<sup>2</sup>.

Can be subject to loads after approx. 45 mins.

### Marking

For traffic markings with cold plastic, coloured finishing or high-solid paint, see **Triflex DMS** – parking deck marking system.

<sup>(3)</sup> Alternative to roughening: remove loose rust and rust scale, prime with Triflex Metal Primer.



# Triflex CPS-F



## System description

### Breaks in work

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

### Product information

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 Glass Primer
- Triflex Glass Cleaner
- Triflex Metal Primer
- Triflex Pox Finish 170
- Triflex Powder Thixo
- Triflex Pox Mortar
- Triflex Pox Primer 116+
- Triflex Special Fleece
- Triflex Special Fleece PF
- Triflex Support Strip
- Triflex Than R 557 thix
- Triflex Than RG 560

### 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.

### Gradient / Evenness

Before applying the pattern or decoration, and during application, always ensure the correct gradient and evenness of the substrate. Any corrections required must be taken into account during this work.

### Pinholes

Air pockets in concrete or screed go on to cause "pinholes". The mechanical substrate pre-treatment causes the air pockets to open on the surface. The subsequent coating closes the access to the air spaces. The warming of the air inside the pockets as a result of the reaction and ambient temperature causes the volume to expand and the pressure to increase. The air then rises up through the coating to the surface. This is a purely physical process and is not triggered by the coating material itself. In order to prevent the formation of pinholes in the coating, it is recommended that processing be performed when temperatures are falling.

### 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 consumptions / Waiting times

The specified consumptions apply only to smooth, flat substrates with a maximum roughness of  $R_f = 0.5$  mm. Special allowance must be made for unevenness, roughness and porosity. Specified flash times and waiting times apply to a substrate and ambient temperature of  $+20^\circ\text{C}$ .

### Information about tools

The Triflex tools mentioned in the system description are a guideline for correct application of the individual functional layers with the respective volumes of product. The use of Triflex tools is not mandatory as long as correct application of the Triflex products is assured.



## System description

### 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 consumption 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.

Furthermore, the applied EP material (primer/finish) must be protected against direct water contact for approx. 24 hrs. at +20 °C. Within this time, 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 finishing. The system may have to be removed and redone.

The max. relative humidity is 75 %.

### Remarks on use

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 finishings. Abrasion can scratch the surface. This does not affect the mechanical properties of the cured coating.

### 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](http://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](http://www.ausschreiben.de) or [www.heinze.de](http://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](http://www.triflex.com).

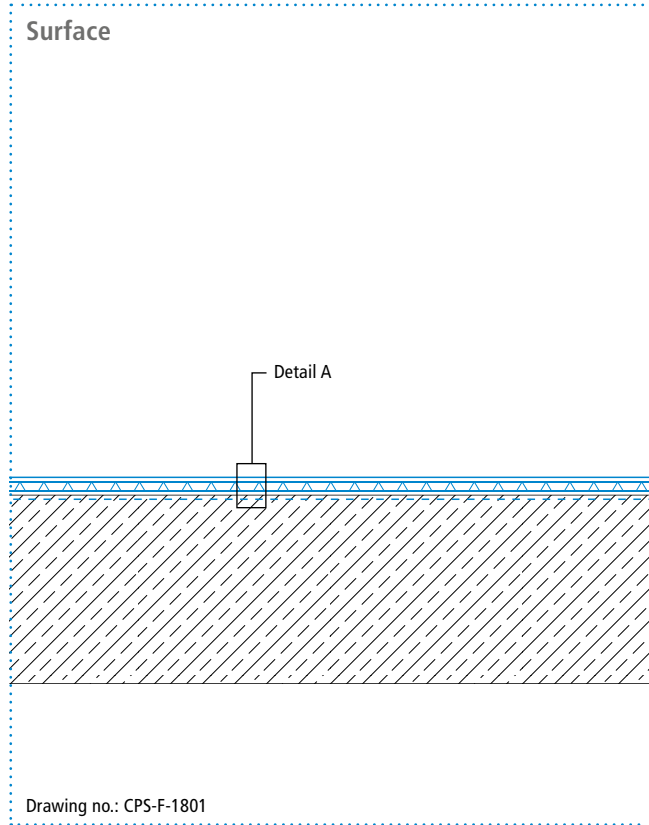
Contact us at [technik@triflex.de](mailto:technik@triflex.de) to request further true-to-scale CAD drawings.



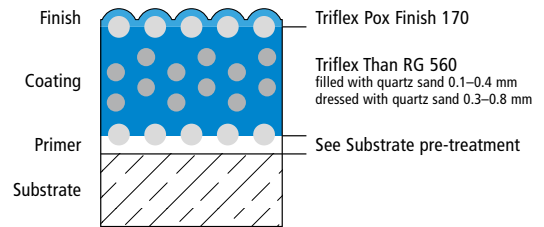
Interior deck coating system (OS 8)

# Triflex CPS-F

## System drawings



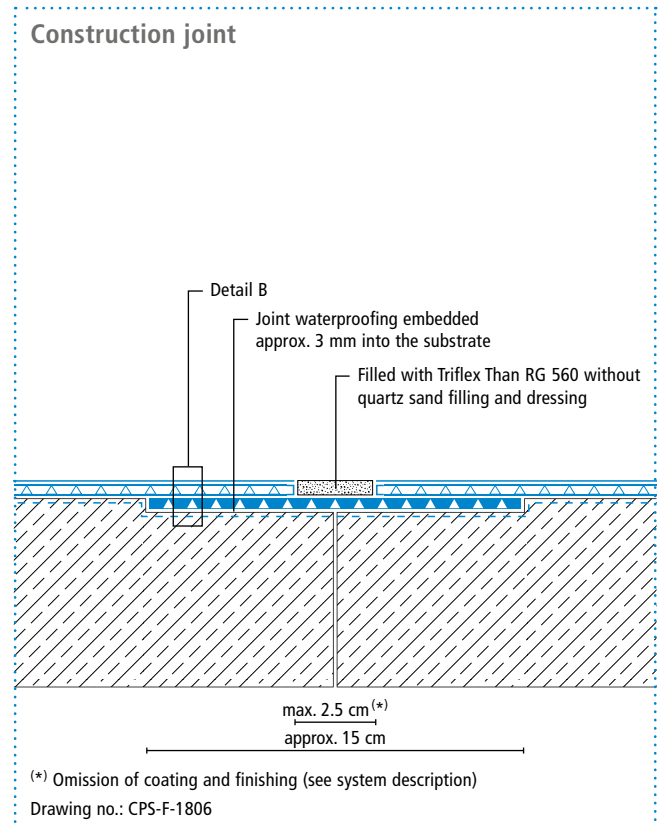
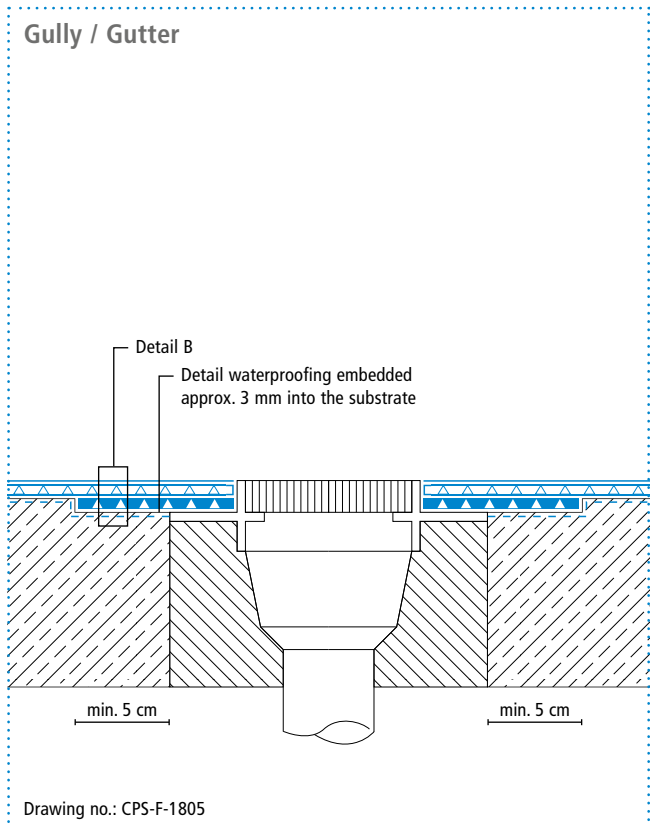
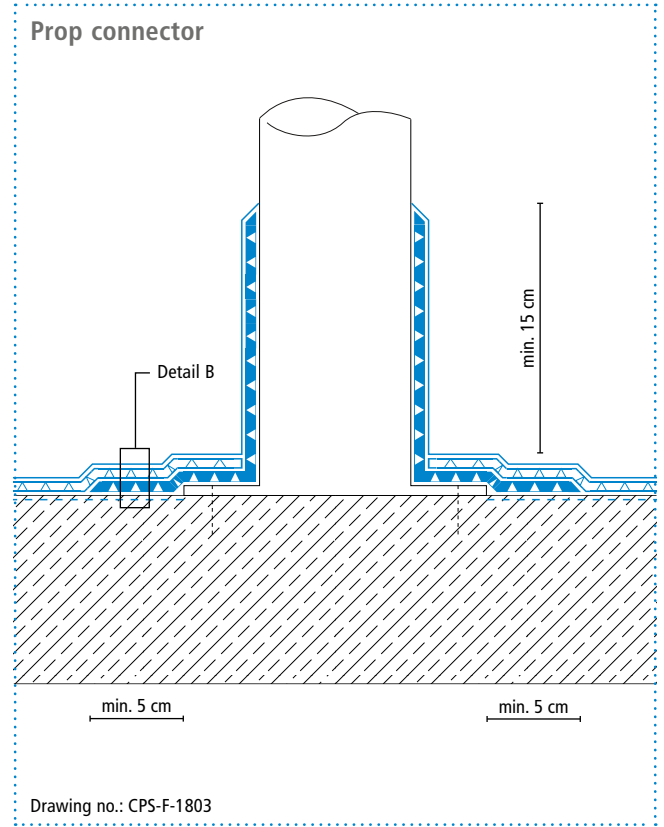
### System build-up – Detail A



# Triflex CPS-F



## System drawings



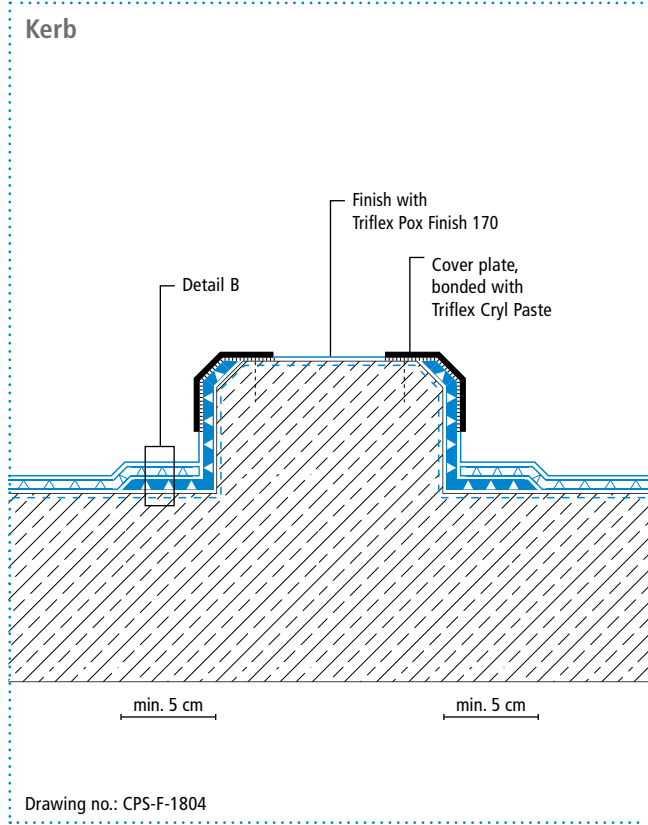
Height differences where the fleece overlaps are exaggerated.



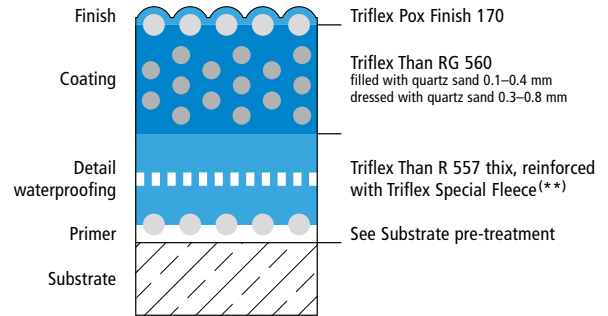
Interior deck coating system (OS 8)

# Triflex CPS-F

## System drawings



### System build-up – Detail B



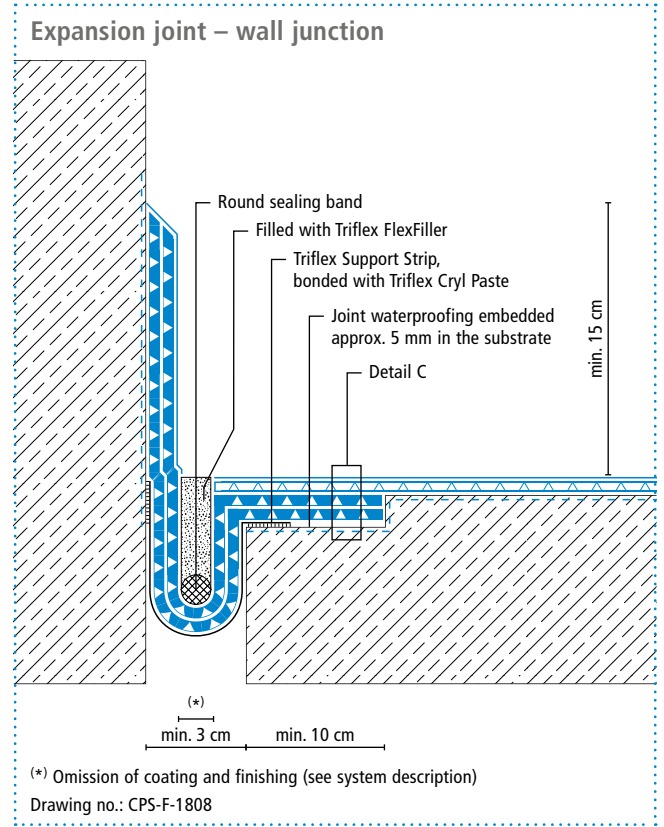
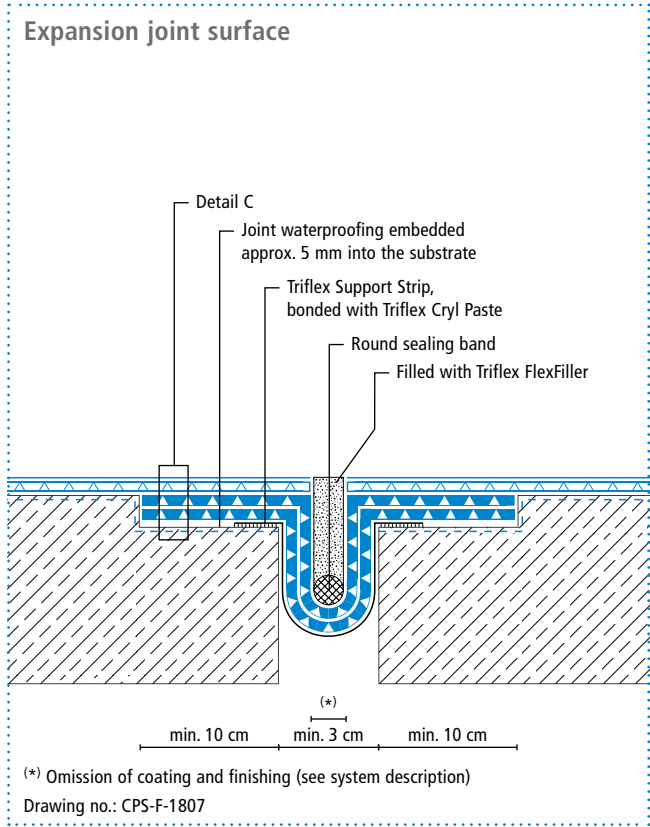
Height differences where the fleece overlaps are exaggerated.

(\*\*) Triflex Special Fleece or Triflex Special Fleece PF

# Triflex CPS-F



## System drawings

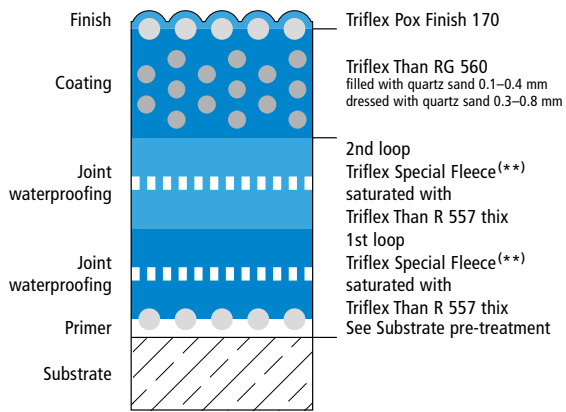


# Triflex CPS-F



## System drawings

### System build-up – Detail C



(\*\*) Triflex Special Fleece or Triflex Special Fleece PF



## Triflex CPS-F surfaces

Dressing with quartz sand and finishing with Triflex Pox Finish 170



7030 Stone grey



7032 Pebble grey



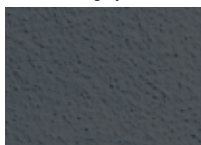
7037 Dusty grey



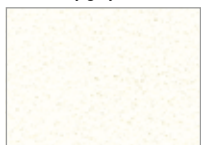
7040 Window grey



7042 Traffic grey A



7043 Traffic grey B



9010 Pure white



1023 Traffic yellow



2009 Traffic orange



3020 Traffic red



4006 Traffic purple



5017 Traffic blue



6024 Traffic green

**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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