Settlement joint waterproofing system

#### Triflex ProJoint+®



#### Specifications

Construction project:	
Architect/client:	

#### Preliminary remarks:

Work is carried out using products from the Minden-based company Triflex GmbH & Co. KG.

This offer is for the procurement and installation of the settlement joint waterproofing system Triflex ProJoint+. Application is performed as per the material manufacturer's technical guidelines.

Compliance with all applicable guidelines is taken into account and required for the different recommended system designs using Triflex products.

Before the contract is awarded, contractors must prove that they have been trained in the application of Triflex products. Otherwise, instruction by a trainer shall be provided on-site.

The quantities contained herein shall be checked on the building site.

Billing shall be based on measurements conducted jointly by the contractor and client.

The waterproofing system must be applied so as to prevent rainwater from penetrating the system structure in the event that work is interrupted.

For disposal of rubble, the cartage and landfill costs shall be included in the individual prices or itemised separately.

Concerns about prior work performed by other contractors shall be communicated to the client in writing immediately, ideally before work begins.

It is recommended that the bidder view the work site prior to submitting a tender.

If alterations or special work not included herein become necessary after work has commenced, detailed notification shall be given before going ahead with such alterations or special work, and the work shall subsequently be billed separately.

Unless explicitly stated otherwise, all work shall be regarded as a comprehensive turnkey service, including the supply of all required materials and ancillary services.

Driving lane coatings are subject to constant loads and stresses in accordance with the level of use.

The system design must be adapted by the expert planner to meet the project-specific requirements. Detailed tender texts must be created by the planner on his or her own authority. There is no specific project consultation associated with the issue of these draft specifications. The preparation of drafts is a non-obligatory service provided by Triflex. Any legal claims from this service are excluded.

The bases for the implementation of concrete repairs which are relevant to stability, are the rules and directives introduced in the German federal states as Technical Building Regulations as per VV TB, Part A, No. A 1.2.3.2 and VV TB, Part C, No. C 3.12.



#### Specifications

The contract comprises the following components:

- Specifications
- System description, system drawings and manufacturer's product information
- DIN 18202 Tolerances for building construction
- Building code regulations
- Accident prevention regulations
- German Construction Contract Procedures (VOB), Part B

in the versions valid at the time of conclusion of the contract.



## **Specifications**

1 Gene			
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1   Gene	eral information		
1.1 Lump sum Build	ding site preparation	Lump sum	
Deliv	tainer very, set-up, provision and off-site transportation material and device container.	Lump sum	
Provi phas	er supply ision of power supply for alternating and three- ee current, to be removed on completion of the ing project.	Lump sum	
Provi	er supply ision of water supply for the necessary cleaning s, to be removed on completion of the building ect.	Lump sum	
Provi build	ce around building site ision of fence for the entire period of the ing project, to be adapted as required by the idual work stages.	Lump sum	
Imple road nece progr	outing of traffic ementing measures to re-route traffic, such as signs, traffic light system etc., setting up any essary devices, adapting in accordance with ress of the building project and removing on oletion of the building project.	Lump sum	
2 Struc	cture and substrate inspection		
conc	ties cking for cavities by tapping the existing crete surfaces with a hammer or chain, and king any areas accordingly.	Lump sum	<del></del>
Dete tensi suita	esive tensile strength rmining and recording the specified adhesive le strength of the existing substrate using a ble gauge (e.g. a Freundl unit). ber of measurements:	Lump sum	
Dete	pressive strength rmining and recording the compressive strength e existing concrete substrate using a Schmidt mer.		
	ber of measurements:	Lump sum	

Amount carried forward: \_\_\_\_\_



			Unit price	Total price
Item no.	Quantity	Subject of service	EUR	EUR
			Amount carried forward:	
2.4	Lump sum	Moisture content  Determining and recording the moisture content of the existing concrete substrate using a suitable gauge (e.g. electronic moisture meter).  Number of measurements:	Lump sum	
2.5	Lump sum	Checking gradient and unevenness Checking the existing substrate for sufficient gradient, formation of puddles and unevenness.	Lump sum	
2.6	Lump sum	Site journal with continuous measuring Provision of suitable measuring devices for the continuous measuring of air humidity, ground temperature, air temperature and to determine the dew point throughout the building project, incl. a site journal with logging of measured values.	Lump sum	
3		Substrate pretreatment		
3.1	m	Milling in the joint area, version 1  Mechanical milling to create recesses on site with a width of at least 33 cm (15 cm provided by the user + 3 cm joint + 15 cm profile) and approx. 25 mm depth, including removal and proper disposal of the milled material. Subsequent levelling off of the milled surface by abrading, including cleaning of the areas.  (See Triflex system drawing ProJoint+-1560)	/m	
3.2	m	Abrading in the joint area, version 2 Mechanical abrade to create friction-locked substrates with a width of at least 33 cm (15 cm provided by the user + 3 cm joint + 15 cm profile), including collection, cleaning, removal and proper disposal.  (See Triflex system drawing ProJoint+-1561)	/m	
3.3	m²	Grinding Preparation of the substrate by grinding with suitable abrasive tools, incl. cleaning, acknowledgement of delivery, off-site transportation and proper disposal of any rubble.	/m²	
3.4	m	Joint milling machine/joint hook Removal of any joint sealant as required using joint milling machine or joint hook.	/m	
		Amou	unt carried forward:	



## **Specifications**

Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			Amount carried forward:	
3.5	m²	Preparation of metal substrate Thoroughly abrade the metal substrates with Triflex Cleaner and additionally roughen the surface. Consumption: min. 0.20 l/m²	/m²	Unit price
4		Triflex Primer		
4.1	m²	Priming of resin-modified substrate For resin-modified substrates. Priming with Triflex Pox Primer 116+ incl. dressing with quartz sand, size 0.3–0.8 mm. Removal of any surplus after curing. Consumption of Triflex Pox Primer 116+: at least 0.30 kg/m² Consumption of quartz sand 0.3–0.8 mm: at least 0.70 kg/m² Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	/m	
4.2	m <sup>2</sup>	Priming of mineral substrate For mineral substrates in the surface. Priming with Triflex Cryl Primer 287. Consumption: at least 0.35 kg/m² Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	/m²	
4.2	m²	Priming of resin-modified substrate For resin-modified substrates. Priming with Triflex Pox Primer 116+ incl. dressing with quartz sand, size 0.3–0.8 mm. Removal of any surplus after curing. Consumption of Triflex Pox Primer 116+: at least 0.30 kg/m² Consumption of quartz sand 0.3–0.8 mm: at least 0.70 kg/m² Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	/m	
4.3	m²	Priming of asphalt For surfacing asphalt substrates Priming with Triflex Cryl Primer 222. Consumption: at least 0.40 kg/m² Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	/m²	
			int carried forward:	

Amount carried forward: \_\_\_\_\_



			Unit price	Total price
Item no.	Quantity	Subject of service	EUR	EUR
non no.	Quantity	Cubject of Service	Amount carried forward:	
4.4	m²	Priming of metal e.g. stainless steel, steel and zinc. Priming with Triflex Metal Primer, incl. pre-cleaning of the surface with Triflex Cleaner. Consumption of Triflex Cleaner: at least 0.20 l/m² Consumption of Triflex Metal Primer: approx. 0.08– 0.10 l/m² Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	/m²	
5		Triflex repairs		
5.1	m <sup>2</sup>	Repair mortar, mineral substrate (Rt >10 mm) Repairing defective spots on the existing mineral substrate with Triflex Cryl RS 240 repair mortar in the area of roughness depths Rt >10 mm. Triflex Cryl RS 240, colour 7023, consumption: at least 2.20 kg/m² per mm layer thickness Application according to the material manufacturer's technical guidelines. Average layer thickness:	/m²	
5.2	m²	Repair mortar, bituminous substrate (Rt >10 mm) Repairing defective spots on the existing bituminous substrate with Triflex Cryl RS 242 repair mortar in		
		the area of roughness depths $R_t > 10$ mm. Triflex Cryl RS 242, colour 7022, consumption: at least 2.20 kg/m² per mm layer thickness Application according to the material manufacturer's technical guidelines. Average layer thickness:	/m²	
5.3	m <sup>2</sup>	Repair coat Shrinkage cracks and smaller areas of damage are levelled off with Triflex Cryl Paste. Consumption: at least 1.40 kg/m² per mm layer thickness Application as per the material manufacturer's technical guidelines.	/m²	
		Amou	unt carried forward:	



			Unit price	Total price
Item no.	Quantity	Subject of service	EUR	EUR
1011110.	Quantity	Casport of convice	Amount carried forward:	
5.5	m²	Mortar wedge, version 2 In order to be able to drive over the fitted Triflex ProJoint joint profile, a mortar wedge with a width of 50 cm is applied to the right and left of the profile with Triflex Cryl RS 240. To do so, an L profile with an underside length of 0.5 cm is bonded to the left and right of the joint in order to then fill the defined inclination with the mortar. Consumption of Triflex Cryl RS 240: approx. 30.00 kg/m. The height offset of 0.5 cm is subsequently mixed with Triflex Cryl Paste with quartz sand with a grain size of 0.7–1.2 mm with a mixing ratio of 1:1. Application as per the material manufacturer's technical guidelines. (See Triflex system drawing ProJoint+-1561)	/m²	
6		Triflex joint waterproofing Creation of joint waterproofing with Triflex ProDetail, including Triflex Special Fleece. The Triflex ProDetail waterproofing system has been awarded ETA approval (ETA No. 06/0269) with CE mark in the highest usage categories W3, M and S, P1 to P4, S1 to S4, TL4, TH4, B <sub>ROOF</sub> (t1), B <sub>ROOF</sub> (t2), B <sub>ROOF</sub> (t3), B <sub>ROOF</sub> (t4). Test reports certify the root resistance as per FLL standards and resistance to hailstorm as per DIN EN 13583 for hard and flexible substrates. A general building supervisory authority test certificate (abP) as per VV TB, Part C, No. C 3.28 is also available.		
		Amou	unt carried forward:	



Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			Amount carried forward:	
6.1	m	Settlement joint waterproofing Waterproofing of the settlement joint with Triflex ProDetail, including Triflex Special Fleece. Apply a width of approx. 4 cm of Triflex Cryl Paste to both sides of the joint to bond the Triflex Support Strip. Triflex Cryl Paste consumption: 1.40 kg/m² per mm layer thickness. Triflex ProDetail, colour 7030, consumption at least 2.10 kg/m, including 2 layers of Triflex Special Fleece, fleece width 35 cm Once the loop sealing has cured, a closed-cell round sealing band is inserted into the joint and subsequently grouted flush with Triflex ProDetail. Triflex ProDetail, colour 7030, consumption at least 0.90 kg/m Application as per the material manufacturer's technical guidelines. (See Triflex system drawing ProJoint+-1560 and ProJoint+-1561)	/m	
Amount carried forward:				



Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			Amount carried forward:	
7		Triflex joint profile		
7.1	m	Joint profile Installing Triflex ProJoint joint profiles, including Triflex ProJoint expansion strip. Bonding of the joint profiles on both sides with Triflex Cryl Paste, mixed with quartz sand 0.7–1.2 mm with a mixing ratio of 1:1. Bonding of the Triflex ProJoint expansion strip with Triflex ProJoint Fix, including prior cleaning with Triflex ProJoint Cleaner. Triflex ProJoint joint profile, w = 142 mm, h = 23 mm, colour cement grey. Triflex Cryl Paste, consumption approx. 1.50 kg/m. Quartz sand 0.7–1.2 mm, consumption approx. 1.50 kg/m. Triflex ProJoint Fix, consumption approx. 0.06 l/m. Triflex ProJoint Cleaner, consumption approx. 0.03 l/m. Application as per the material manufacturer's technical guidelines. (See Triflex system drawing ProJoint+-1560 and ProJoint+-1561)  Product properties: - High-quality polymer floor joint profile in carbon fibre composite technology - Rustproof - Heavy-duty and crack-bridging - Elastically bonded with the substrate - Expansion coefficient of the profile like the multistorey car park coating as fastened with the same PMMA resin base - Fire classification: B <sub>ff</sub> -s1 (flame-retardant) - Total horizontal joint movement: 35 mm (-10/+25 mm) - Compressive strength 60 N/mm² as per ONR 23303 - Tensile bending strength: 50 N/mm² as per DIN EN 196-1	/m	
8		Hourly rates		
8.1	hrs.	Hourly rate of a foreman.	/hr.	
8.2	hrs.	Hourly rate of a skilled worker.	/hr.	
8.3	hrs.	Hourly rate of an assistant.	/hr.	
		l Amo	unt carried forward:	



			Unit price	Total price
Item no.	Quantity	Subject of service	EUR	EUR
			Amount carried forward:	
9		Materials		
9.1	kg	Material consumption upon proof.	/kg	Unit price
10		Disposal		
10.1	Lump sum	Disposal of all waste and hazardous waste materials in accordance with the current applicable laws and implementing regulations.  Net total:	Lump sum	
		Statutory VAT at% Gross total:		