#### Specifications

Construction project:

Architect/client:

#### Preliminary remarks:

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

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

The waterproofing systems within the system build-up with Triflex ProDetail (junctions, details) and Triflex ProTerra (surfaces) are covered by European Technical Approvals (ETAs) issued by the German approval body for non-regulated construction products and types of construction, Deutsches Institut für Bautechnik (DIBt), and meet the requirements of the Construction Products Directive of the EU (CE marking) according to ETAG No. 005 in the highest usage categories.

General Building Supervisory Authority Test Certificates (PG-FLK) certify the suitability for use of the waterproofings within the system build-up as structure waterproofing on surfaces with an inclination of up to 90° as per MVV TB C 3.28.

Use of the system as flame-retardant variant S1 is also certified by a General Building Supervisory Authority Test Certificate.

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.

- The contract comprises the following components:
- Specifications
- System description and manufacturer's product information
- DIN 18202 Tolerances in building construction
- DIN 18531 Waterproofing of roofs, balconies, loggias and walkways
- Rules for waterproofing systems (German Flat Roof Guidelines) Zentralverband des Deutschen Dachdeckerhandwerks (German Central Association of the Roofing Trade)
- 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

The system build-up 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.

System and product characteristics:

- Full-surface fleece-reinforced waterproofing system based entirely on polymethyl methacrylate resin (PMMA)
- Withstands high mechanical loads
- Hydrolysis-resistant
- Seamless
- Cold-applied
- Fast-curing
- Solvent-free
- Flexible
- Vapour-permeable
- Full-surface adhesion on a multitude of substrates
- Root- and rhizome-resistant according to FLL standards
- Conditions for use as per manufacturer's system and product descriptions (e.g. minimum application temperature 0 °C substrate moisture max. substrate moisture 6 % by weight, surface temperature min. 3 °C above dew point)
- Joint-bridging
- Dynamic crack-bridging properties
- Crack-bridging up to 3.0 mm based on PG-FLK
- Weather-resistant (UV, IR etc.)
- Chemical-resistant
- Fire classification according to EN 13501-5: Class BROOF(t1), BROOF(t2), BROOF(t3), BROOF(t4)
- Fire classification according to EN 13501-1: Class E
- · Hard roofing in accordance with the German regional building regulations
- European Technical Approval with CE mark in the highest usage categories (W3, M and S, P1 to P4, S1 to S4, TL4, TH4)
- Complies with DIN 18531 and German Flat Roof Guidelines
- Triflex BTS-P version S1 is flame-retardant (B1 according to DIN 4102 and Class CfI-s1 according to DIN EN 13501- 1)
- Can be combined with Triflex BIS balcony insulation system or Triflex ProDrain balcony uncoupling system



### Specifications

Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
1		General		
1.1	Lump sum	Building site preparation	Lump sum	
2		Structure and substrate inspection		
2.1	Lump sum	<b>Cavities</b> Checking for cavities by tapping the existing surfaces with a hammer, and marking any areas that sound hollow.	Lump sum	
2.2	Lump sum	<b>Moisture content</b> Determining and recording the moisture content of the existing concrete substrate using a suitable gauge (e.g. a CM device).	Lump sum	
2.3	Lump sum	<b>Evenness and gradient</b> Testing the evenness and gradient of the existing substrate.	Lump sum	
2.4	Lump sum	Adhesive tensile strength Determining and recording the specified adhesive tensile strength of the existing substrate using a suitable gauge (e.g. a Herion unit).	Lump sum	
3		Substrate pre-treatment See Triflex BTS-P system description, Substrate pre-treatment table. Triflex BTS-P version S1 (flame-retardant) is proofed on the surface of solid mineral substrates with a raw density >1,350 kg/m <sup>3</sup> (e.g. concrete, screed and lightweight concrete) and on the slope grout Triflex Cryl Level 215.		
3.1	m²	<b>Grinding</b> 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	
3.2	m²	<b>Milling</b> Removal of any contaminated surfaces on the concrete/screed using a suitable milling machine of approx. 5 mm in depth in order to ensure the adhesive property and soundness of the substrate incl. acknowledgement of delivery, off-site transportation and proper disposal of the milled material.	/m²	
	1			



### Specifications

			Unit price	Total price
Item no.	Quantity	Subject of service	EUR	EUR
			:	
4		<b>Triflex Primer</b> See Triflex BTS-P system description, Substrate pre-treatment table.		
4.1	m²	<b>Priming of asphalt</b> Priming with Triflex Cryl Primer 222. Consumption: at least 0.40 kg/m <sup>2</sup> 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 concrete e.g. concrete, screed, tiles, wood, lightweight concrete, plaster/masonry. Priming with Triflex Cryl Primer 276. Consumption: at least 0.40 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	/m²	
4.3	m²	Priming of composite thermal insulation systems e.g. on composite thermal insulation systems, resin- modified mortar. Priming with Triflex Pox R 100 incl. dressing with a surplus of quartz sand, size 0.2–0.6 mm. Removing any surplus after curing. Junction height: cm Consumption of Triflex Pox R 100: at least 0.30 kg/m <sup>2</sup> Consumption of quartz sand 0.2–0.6 mm: at least 2.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	/m²	
4.4	m²	Priming of glass Priming with Triflex Glass Primer, incl. pre-cleaning of the surface with Triflex Glass Cleaner. Consumption of Triflex Glass Cleaner: at least 0.05 I/m <sup>2</sup> Consumption of Triflex Glass Primer: approx. 0.05 I/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	/m²	
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ltem no.	Quantity	Subject of service	Unit price EUR	I otal price EUR
4.5	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/m <sup>2</sup> Consumption of Triflex Metal Primer: approx. 0.08 l/m <sup>2</sup> 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	m²	<b>Grouting</b> e.g. in the event of shrinkage cracks, small areas of damage and uneven areas. Grouting and filling in with Triflex Cryl Paste. Consumption: approx. 1.40 kg/m <sup>2</sup> per mm layer thickness Application according to the material manufacturer's technical guidelines.	/m²	
5.2	m²	Levelling out e.g. in the event of larger areas of damage. Levelling out and filling in with Triflex Cryl RS 240. Consumption: approx. 2.20 kg/m <sup>2</sup> per mm layer thickness Application according to the material manufacturer's technical guidelines.	/m²	
5.3	m²	Scratch coat, mineral substrate or asphalt Repairing defective spots on the existing mineral substrate or on asphalt using a scratch coat with a Triflex ProFloor base. Triflex ProFloor scratch coat made from 33 kg Triflex ProFloor with the addition of up to 10 kg quartz sand (0.2–0.6 mm), grey finish. Average layer thickness: Consumption: at least 2.00 kg/m <sup>2</sup> per mm layer thickness Application according to the material manufacturer's technical guidelines.	/m²	
		Amo	unt carried forward:	



#### Specifications

ltem no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			:	
5.4	m²	<b>Gradient creation</b> Creation of a sufficient gradient using Triflex Cryl Level 215. Average thickness: mm Consumption: approx. 2.20 kg/m <sup>2</sup> per mm layer thickness Application according to the material manufacturer's technical guidelines.	/m²	
6		<b>Triflex detail waterproofing</b> Creation of detail waterproofing with Triflex ProDetail incl. 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 according to FLL standards and resistance to hailstorm according to DIN EN 13583 for hard and flexible substrates.		
6.1	m	Wall junction Waterproofing of the wall junction with Triflex ProDetail incl. Triflex Special Fleece. Triflex Special Fleece strip width: cm Consumption of Triflex ProDetail: at least 3.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. (See Triflex system drawing BTS-P-2703)	/m	
6.2	m	Door sill Waterproofing of the door sill with Triflex ProDetail incl. Triflex Special Fleece. Triflex Special Fleece strip width: cm Consumption of Triflex ProDetail: at least 3.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. (Corresponds to Triflex system drawing BTS-P- 2703)	/m	
6.3	pc.	<b>Gully</b> Waterproofing of the gully with Triflex ProDetail incl. Triflex Special Fleece. Triflex Special Fleece strip width: cm, d = cm Consumption of Triflex ProDetail: at least 3.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. (See Triflex system drawing BTS-P-2705)	/pc.	



#### Specifications

ltem no.	Quantity	Subject of service	Unit price FUR	Total price FUR
			:	
6.4	m	<b>Gutter</b> Waterproofing of the gutter inlet with Triflex ProDetail incl. Triflex Special Fleece. Triflex Special Fleece strip width: cm Consumption of Triflex ProDetail: at least 3.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. (Corresponds to Triflex system drawing BTS-P- 2705)	/m	
6.5	pc.	Settlement joint Waterproofing of the settlement joint with Triflex ProDetail incl. Triflex Special Fleece. Triflex Special Fleece strip width: cm, d = cm. Consumption of Triflex ProDetail: at least 3.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. (See Triflex system drawing BTS-P-2704)	/00	
			/pc.	
6.6	pc.	Penetration Waterproofing of the penetration with Triflex ProDetail incl. Triflex Special Fleece. Triflex Special Fleece strip width: cm, d = cm Consumption of Triflex ProDetail: at least 3.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. (See Triflex system drawing BTS-P-2704)	/pc.	
6.7	m	Leading edge with bracket-mounted gutter Waterproofing of the leading edge with Triflex ProDetail incl. Triflex Special Fleece. Triflex Special Fleece strip width: cm Consumption of Triflex ProDetail: at least 3.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. (See Triflex system drawing BTS-P-2706)	/m	
6.8	m	Leading edge with eaves flashing Waterproofing of the leading edge with Triflex ProDetail incl. Triflex Special Fleece. Triflex Special Fleece strip width: cm Consumption of Triflex ProDetail: at least 3.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. (Corresponds to Triflex system drawing BTS-P- 2706)	/m	



#### Specifications

			Unit price	Total price
Item no.	Quantity	Subject of service	EUR	EUR
			:	
6.9	m	Leading edge with edge finishing profile Installation and bonding of the Triflex balcony edge finishing profile with Triflex Cryl Paste. Consumption: approx. 1.40 kg/m <sup>2</sup> per mm layer thickness Waterproofing of the leading edge with Triflex ProDetail incl. Triflex Special Fleece. Triflex Special Fleece strip width: cm Consumption of Triflex ProDetail: at least 3.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. (See Triflex system drawing BTS-P-2707)	/m	
6.10	m	Leading edge with edge finishing profile P 250 Installation and bonding of the Triflex balcony edge finishing profile P 250 with Triflex Cryl Paste. Consumption: approx. 1.40 kg/m <sup>2</sup> per mm layer thickness Waterproofing of the leading edge with Triflex ProDetail incl. Triflex Special Fleece. Triflex Special Fleece strip width: cm Consumption of Triflex ProDetail: at least 3.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. (Corresponds to Triflex system drawing BTS-P- 2707)	/m	
7		<b>Triflex joint waterproofing</b> Creation of joint waterproofing with Triflex ProDetail incl. 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, BROOF(t1), BROOF(t2), BROOF(t3), BROOF(t4). Test reports certify the root resistance according to FLL standards and resistance to hailstorm according to DIN EN 13583 for hard and flexible substrates.		
7.1	m	<b>Construction joint</b> Waterproofing of the construction joint with Triflex ProDetail incl. Triflex Special Fleece. Triflex Special Fleece strip width: cm Consumption of Triflex ProDetail: at least 0.60 kg/m Application according to the material manufacturer's technical guidelines. (See Triflex system drawing BTS-P-2708)	/m	



#### Specifications

ltem no	Quantity	Subject of service	Unit price	Total price
item no.	Quantity		EOK	EOK
			:	
7.2	m	Settlement joint surface Waterproofing of the settlement joint with Triflex ProDetail incl. Triflex Special Fleece. Two layers of Triflex Special Fleece, strip width: 		
		(See Triflex system drawing BTS-P-2709)	/m	
7.3	m	Settlement joint – wall junction Waterproofing of the settlement joint with Triflex ProDetail incl. Triflex Special Fleece. Two layers of Triflex Special Fleece, strip width: 	/m	
8		<b>Triflex surface waterproofing</b> Creation of surface waterproofing with Triflex ProTerra incl. Triflex Special Fleece. The Triflex ProTerra 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, BROOF(t1), BROOF(t2), BROOF(t3), BROOF(t4). Test reports certify the root resistance according to FLL standards and resistance to hailstorm according to DIN EN 13583 for hard and flexible substrates.		
8.1	m²	Surface waterproofing Waterproofing of the surface with Triflex ProTerra incl. Triflex Special Fleece. Consumption of Triflex ProTerra: at least 3.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. (See Triflex system drawing BTS-P-2701)	/m²	
9		Triflex wearing layer		
9.1	m²	Wearing layer – standard Coating of the surface with Triflex ProFloor. Consumption: at least 4.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines.		
		(See Triflex system drawing BTS-P-2701)	/m²	



ltem no.	Quantity	Subject of service	EUR	EUR
9.2	m²	Wearing layer – version S1 (flame-retardant) Coating of the surface with Triflex ProFloor S1. Consumption: at least 4.00 kg/m <sup>2</sup> Application according to the material manufacturer's technical guidelines. (See Triflex system drawing BTS-P-2702)	: /m²	
10		Triflex Finish		
10.1	m²	"Micro Chips" (R 9) surface – standard Finishing of the surface and details with Triflex Cryl Finish 205, dressing of the surface with Triflex Micro Chips. Colour:	/m²	
10.2	m²	"Micro Chips" (R 9) surface – version S1 (flame-retardant) Finishing of the surface and details with Triflex Cryl Finish S1, dressing of the surface with Triflex Micro Chips. Colour:	/m²	
		Amo	unt carried forward	



ltem no.	Quantity	Subject of service	Unit price EUR	I otal price EUR
10.3	Quantity	Subject of service         "Colour Design" (R 10) surface         Finishing of the surface and details with         Triflex Cryl Finish 205, dressing of the surface with         Triflex Colour Mix, final finish with         Triflex Cryl Finish Satin.         Triflex Colour Design colour: at the         discretion of the client.         Consumption of Triflex Cryl Finish 205: at least 0.50         kg/m²         Consumption of Triflex Colour Mix: at least 0.80–         1.00 kg/m²         Consumption of Triflex Cryl Finish Satin: at least         0.35 kg/m²         Application according to the material manufacturer's technical guidelines.         (Not suitable for the Triflex BTS-P S1 (flame-	EUR :	
10.4	m²	<ul> <li>(Not suitable for the Triflex BTS-P S1 (flame-retardant) version).</li> <li>"Creative Design" (R 9) surface – standard version with Triflex Micro Chips</li> <li>Finishing of the surface and details with</li> <li>Triflex Cryl Finish 205 (joint colour).</li> <li>Joint colour: at the discretion of the client.</li> <li>Consumption of Triflex Design Sheet.</li> <li>Tile pattern: at the discretion of the client.</li> <li>Finishing of the surface with Triflex Cryl Finish 205 (surface colour), dressing of the surface with</li> <li>Triflex Micro Chips.</li> <li>Surface colour: at the discretion of the client.</li> <li>Removal of the bonded sheet once the surface has cured.</li> <li>Consumption of Triflex Cryl Finish 205: at least 0.50 kg/m<sup>2</sup></li> <li>Consumption of Triflex Micro Chips: at least 0.50 kg/m<sup>2</sup></li> <li>Consumption of Triflex Micro Chips: at least 0.05 kg/m<sup>2</sup></li> <li>Application according to the material manufacturer's technical guidelines.</li> <li>(Not suitable for the Triflex BTS-P S1 (flame-retardant) version).</li> </ul>	/m²	
		Amo	unt carried forward:	



			Unit price	Total price
Item no.	Quantity	Subject of service	EUR	EUR
			:	
10.5	m <sup>2</sup>	<ul> <li>"Creative Design" (R 10) surface – standard version with Triflex Colour Mix</li> <li>Finishing of the surface and details with</li> <li>Triflex Cryl Finish 205 (joint colour).</li> <li>Joint colour: at the discretion of the client.</li> <li>Consumption of Triflex Cryl Finish 205: at least 0.50 kg/m<sup>2</sup></li> <li>Affixing the Triflex Design Sheet.</li> <li>Tile pattern: at the discretion of the client.</li> <li>Finishing of the surface with Triflex Cryl Finish 205 (surface colour), dressing of the surface with</li> <li>Triflex Colour Mix.</li> <li>Surface colour: at the discretion of the client.</li> <li>Removal of the bonded sheet once the surface has cured.</li> <li>Consumption of Triflex Cryl Finish 205: at least 0.50 kg/m<sup>2</sup></li> <li>Consumption of Triflex Colour Mix: at least 0.80–1.00 kg/m<sup>2</sup></li> <li>Consumption of final finish with Triflex Cryl Finish Satin: at least 0.35 kg/m<sup>2</sup></li> <li>Application according to the material manufacturer's technical guidelines.</li> <li>(Not suitable for the Triflex BTS-P S1 (flame-retardant) version).</li> </ul>	/m²	
10.6	m²	"Dressing, fine" (R 11) surface – standard Finishing of the surface and details with Triflex Cryl Finish 205 with quartz sand dressing, size 0.2–0.6 mm. Colour:	/m²	
	l	l Amo	unt carried forward:	



ltem no.	Quantity	Subject of service	Unit price EUR	I otal price EUR
10.7	m²	"Dressing, fine" (R 11) surface –	:	
		<ul> <li>version (S1) (flame-retardant)</li> <li>Finishing of the surface and details with Triflex Cryl</li> <li>Finish S1 with quartz sand dressing, size 0.2–</li> <li>0.6 mm.</li> <li>Colour:</li></ul>	/m²	
10.8	m²	<b>"Dressing, coarse" (R 12) surface – standard</b> Dressing of the wet Triflex ProFloor wearing layer with quartz sand, size 0.7–1.2 mm. Consumption of quartz sand 0.7–1.2 mm: at least 7.00 kg/m <sup>2</sup> Finishing of the surface and details with Triflex Cryl Finish 205, dressing of the surface with Triflex Micro Chips. Colour:		
		retardant) version).	/m²	
		Amo	unt carried forward	



Itom no	Quantity	Subject of convice	Unit price	Total price
item no.	Quantity		LOIC	LOIX
			:	
10.9	m²	"Dressing, coarse" (R 12) surface – version S1 (flame-retardant) Dressing of the wet Triflex ProFloor S1 wearing layer with quartz sand, size 0.7–1.2 mm. Consumption of quartz sand 0.7–1.2 mm: at least 7.00 kg/m <sup>2</sup> Finishing of the surface and details with Triflex Cryl Finish S1, dressing of the surface with Triflex Micro Chips. Colour:	/m²	
11		Hourly rates		
11.1	hrs.	Hourly rate of a foreman.	/hr.	
11.2	hrs.	Hourly rate of a skilled trade worker.	/hr.	
11.3	hrs.	Hourly rate of an assistant.	/hr.	
12		Materials		
12.1	kg	Material consumption upon proof.	/kg	Unit price
13		Disposal		
13.1	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:		