

Triflex Stone Design



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, Deutsche 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.

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.

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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) with marble gravel or granite chippings surface
- Withstands mechanical loads
- Hydrolysis-resistant
- Seamless
- Cold-applied
- Fast-curing
- Solvent-free
- Elastic
- 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.)
- Alkali-resistant
- Chemical-resistant
- Fire classification according to EN 13501-5: Class B_{ROOF}(t1), B_{ROOF}(t2), B_{ROOF}(t3), B_{ROOF}(t4)
- Fire classification according to EN 13501-1: Class E
- 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

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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	Cavities Checking for cavities by tapping the existing surfaces with a hammer, and marking any areas that sound hollow.	Lump sum	_____
2.2	Lump sum	Moisture content 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	Evenness and gradient 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 Stone Design system description, Substrate pre-treatment table.		
3.1	_____ m ²	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.	_____ /m ²	_____
3.2	_____ m ²	Milling 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.	_____ /m ²	_____

Amount carried forward: _____

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Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			Amount carried forward:	_____
4		Triflex Primer See Triflex Stone Design system description, Substrate pre-treatment table.		
4.1	_____ m ²	Priming of asphalt Priming with Triflex Cryl Primer 222. Consumption: at least 0.40 kg/m ² Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	_____ /m ²	_____
4.2	_____ m ²	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 ² Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	_____ /m ²	_____
4.3	_____ m ²	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 ² Consumption of quartz sand 0.2–0.6 mm: at least 2.00 kg/m ² Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	_____ /m ²	_____
4.4	_____ m ²	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 l/m ² Consumption of Triflex Glass Primer: approx. 0.05 l/m ² Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	_____ /m ²	_____

Amount carried forward: _____

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Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			Amount carried forward:	_____
4.5	_____ m ²	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 ² Consumption of Triflex Metal Primer: approx. 0.08 l/m ² Application according to the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	_____ /m ²	_____
5		Triflex repairs		
5.1	_____ m ²	Grouting 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 ² per mm layer thickness Application according to the material manufacturer's technical guidelines.	_____ /m ²	_____
5.2	_____ m ²	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 ² per mm layer thickness Application according to the material manufacturer's technical guidelines.	_____ /m ²	_____
5.3	_____ m ²	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 ² per mm layer thickness Application according to the material manufacturer's technical guidelines.	_____ /m ²	_____

Amount carried forward: _____

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Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			Amount carried forward:	_____
5.4	_____ m ²	Gradient creation Creation of a sufficient gradient using Triflex Cryl Level 215. Average thickness: mm Consumption: approx. 2.20 kg/m ² per mm layer thickness Application according to the material manufacturer's technical guidelines.	_____ /m ²	_____
6		Triflex detail waterproofing 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, 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.		
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 ² Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2402)	_____ /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 ² Application according to the material manufacturer's technical guidelines. (Corresponds to Triflex system drawing Stone Design-2402)	_____ /m	_____
6.3	_____ pc.	Gully 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 ² Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2404)	_____ /pc.	_____

Amount carried forward: _____

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Specifications

Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			Amount carried forward:	_____
6.4	_____ m	Gutter 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 ² Application according to the material manufacturer's technical guidelines. (Corresponds to Triflex system drawing Stone Design-2404)	_____ /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 ² Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2403)	_____ /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 ² Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2403)	_____ /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 ² Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2405)	_____ /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 ² Application according to the material manufacturer's technical guidelines. (Corresponds to Triflex system drawing Stone Design-2405)	_____ /m	_____

Amount carried forward: _____

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Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			Amount carried forward:	_____
6.9	_____ m	<p>Leading edge with edge finishing profile Installation and bonding of the Triflex Stone Design Balcony Edge Finishing Profile with Triflex Cryl Paste. Consumption of Triflex Cryl Paste: approx. 1.40 kg/m² 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/m² Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2406)</p>	_____ /m	_____
7		<p>Triflex joint waterproofing 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.</p>		
7.1	_____ m	<p>Construction joint Waterproofing of the construction joint with Triflex ProDetail incl. Triflex Special Fleece. Triflex Special Fleece strip width: cm Consumption of Triflex ProDetail: approx. 0.60 kg/m Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2407)</p>	_____ /m	_____
7.2	_____ m	<p>Settlement joint surface Waterproofing of the settlement joint with Triflex ProDetail incl. Triflex Special Fleece. Two layers of Triflex Special Fleece, strip width: cm Consumption of Triflex ProDetail: at least 1.20 kg/m Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2408)</p>	_____ /m	_____

Amount carried forward: _____

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Specifications

Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			Amount carried forward:	_____
7.3	_____ m	<p>Settlement joint – wall junction Waterproofing of the settlement joint with Triflex ProDetail incl. Triflex Special Fleece. Two layers of Triflex Special Fleece, strip width: cm Consumption of Triflex ProDetail: at least 1.20 kg/m Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2409)</p>	_____ /m	_____
8		<p>Triflex surface waterproofing Creation of surface waterproofing with Triflex ProTerra incl. Triflex Special Fleece. The Triflex ProTerra waterproofing system has been awarded ETA approval (ETA No. 04/0019) 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.</p>		
8.1	_____ m ²	<p>Surface waterproofing Waterproofing of the surface with Triflex ProTerra incl. Triflex Special Fleece. Consumption of Triflex ProTerra: at least 3.00 kg/m² Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2401)</p>	_____ /m ²	_____
9		<p>Triflex Finish</p>		
9.1	_____ m ²	<p>Finish with quartz sand dressing Finishing of the surface and details with Triflex Cryl Finish 205 with quartz sand dressing, size 0.2–0.6 mm. Colour: at the discretion of the client. Consumption of Triflex Cryl Finish 205: at least 0.50 kg/m² Consumption of quartz sand 0.2–0.6 mm: approx. 1.00 kg/m² (should be matched to the surface colour with Triflex Stone Design. Other colour combinations customised to individual requirements also possible). Application according to the material manufacturer's technical guidelines.</p>	_____ /m ²	_____

Amount carried forward: _____

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Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
10		Triflex Surface	Amount carried forward:	_____
10.1	_____ m	Profile rail as surface border (type A and C) Use Triflex Cryl Paste to glue the profile rail with a side height of 6 mm. Consumption of Triflex Cryl Paste: approx. 1.40 kg/m ² per mm layer thickness	_____ /m	_____
10.2	_____ m ²	Wearing layer – Stone Design with grain size type A (1-4 mm) Coating of the surface with Triflex Stone Design. Consumption of Triflex Stone Design R 1K: approx. 1.10 kg/m ² Consumption of Stone Design S: approx. 13.00 kg/m ² Surface borders must always be finished with profiles or strips. Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2401)	_____ /m ²	_____
10.3	_____ m ²	Wearing layer – Stone Design with grain size type C (2-4 mm) Coating of the surface with Triflex Stone Design. Consumption of Triflex Stone Design R 1K: approx. 1.10 kg/m ² Consumption of Stone Design S: approx. 13.00 kg/m ² Surface borders must always be finished with profiles or strips. Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2401)	_____ /m ²	_____
10.4	_____ m	Profile rail as surface border (Type B) Use Triflex Cryl Paste to glue the profile rail with a side height of 8 mm. Consumption of Triflex Cryl Paste: approx. 1.40 kg/m ² per mm layer thickness	_____ /m	_____

Amount carried forward: _____

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Specifications

Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			Amount carried forward:	_____
10.5	_____ m ²	Wearing layer – Stone Design with grain size type B (5-8 mm) Coating of the surface with Triflex Stone Design. Surface borders must always be finished with profiles or strips. Consumption of Triflex Stone Design R 1K: approx. 1.40 kg/m ² Consumption of Stone Design S: approx. 17.00 kg/m ² Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Stone Design-2401)	_____ /m ²	_____
10.6	_____ m ²	Luminescent surface Mixing of luminescent stones Triflex Stone Design Galaxy to a previously selected wearing layer. Consumption: approx. 0,40 kg/m ² Application according to the material manufacturer's technical guidelines.	_____ /m ²	_____
10.7	_____ m ²	Final finish Finishing the surface with Triflex Stone Design R 1K with SD roller after previously removing excess material with a paint grid. Consumption: approx. 0,15 kg/m ² Application according to the material manufacturer's technical guidelines.	_____ /m ²	_____
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.	Lump sum	_____

Amount carried forward: _____

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Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			Amount carried forward:	_____
		Net total:		_____
		Statutory VAT at ____%		_____
		Gross total:		_____