



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 Towersafe are covered by European Technical Approvals (ETAs) issued by the German approval body for non-regulated construction products and types of construction, the Deutsches Institut für Bautechnik (DIBt), and meet the requirements of the EU's Construction Products Directive (CE mark) in accordance with ETAG No. 005 in the highest usage category. This waterproofing system is classified as a rigid roofing structure, among other things, in accordance with German regional building regulations.

There is a General Building Supervisory Authority Test Certificate (abP) in accordance with the Building Regulations List A, Part 2, No. 1.4 for the system build-up as liquid applied waterproofing, as joint waterproofing for concrete components with high water-penetration resistance and as waterproofing for structures on surfaces at an incline of up to 90° in accordance with Building Regulations List A, Part 2, No. 2.51.

Before the contract is awarded, the contractor must prove that he or she has 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:

- Bill of quantities
- System description and manufacturer's product information
- 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.

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 this draft bill of quantities. The preparation of the drafts is a non-obligatory service provided by Triflex. Any legal claims from this service are excluded.





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		Substrate pre-treatment		
2.1	Lump sum	Cavities Checking for cavities by tapping the existing concrete surfaces with a hammer, and marking and photographing any areas that sound hollow. Disposing of rubble properly.	Lump sum	_____
2.2	Lump sum	Adhesive tensile strength Determining and recording the specified adhesive tensile strength of the existing substrate using a suitable gauge (e.g. a Freundl device). Number of measurements:	Lump sum	_____
2.3	Lump sum	Moisture content Determining and recording the moisture content of the existing concrete substrate using a suitable gauge (e.g. a CM device). Number of measurements:	Lump sum	_____
3		Substrate pre-treatment (See Triflex Towersafe system description, Substrate pre-treatment table).		
3.1	_____ m ²	Milling Removing any contaminated surfaces on the concrete with a suitable milling machine approx. 3-5 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	_____
3.2	_____ m ²	Grinding Preparing the substrate in accordance with the system description, Substrate pre-treatment table, by grinding with suitable abrasive tools, incl. cleaning, acknowledgement of delivery, off-site transportation and proper disposal of any rubble.	_____ /m ²	_____
3.3	_____ m	Grinding the junctions Preparing the mineral substrates, wall junctions and details by grinding with suitable abrasive tools, incl. cleaning, acknowledgement of delivery, off-site transportation and proper disposal of any rubble.	_____ /m	_____

Amount carried forward: _____



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Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
			Amount carried forward:	_____
3.4	_____ m ²	Preparing metal substrates Thorough cleaning of metal substrates and abrasion or degreasing with Triflex Cleaner	_____ /m ²	_____
3.5	_____ m ²	Preparing the tower flange Cleaning the upright surfaces of the tower flange and abrasion or degreasing of at least 15 cm with Triflex Cleaner.	_____ /m ²	_____
4		Triflex Primer (See Triflex Towersafe system description, Substrate pre-treatment table)		
4.1	_____ m ²	Priming the concrete Priming the concrete substrate with Triflex Towersafe Primer. Junction height: cm, width: cm Volume: 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 the metal Priming the metal substrate with Triflex Metal Primer (spray can). Junction height: cm, width: cm Volume: approx. 0.10 l/m ² Application according to the material manufacturer's technical guidelines.	_____ /m ²	_____
5		Triflex repairs		
5.1	_____ m ²	Repair mortar, mineral substrate (R_T >10 mm) Repairing defective spots on the existing mineral substrate with Triflex Cryl RS 240 repair mortar in the area of roughness depths R _T >10 mm. Triflex Cryl RS 240, colour 7023, volume: at least 2.20 kg/m ² per mm of layer thickness Average layer thickness: Application according to the material manufacturer's technical guidelines.	_____ /m ²	_____
6		Triflex uncoupling		
6.1		Sealing off the tower from the foundation using joint sealant and Triflex duct tape to raise the free expansion section.	_____ /m	_____

Amount carried forward: _____



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			Amount carried forward:	_____
7		<p>Triflex detail waterproofing Creating detail waterproofing with Triflex Towersafe incl. Triflex Special Fleece. The Triflex Towersafe waterproofing system has obtained European Technical Approval (ETAG No. 05/0205) with CE mark in the highest usage categories W3, M and S, P1 to P4, S1 to S4, TL4, TH4, B_{ROOF} (t1), B_{ROOF} (t2), B_{ROOF} (t3), and its root resistance is also certified according to FLL standards.</p>		
7.1	_____ m	<p>Wall junction Waterproofing the wall junction with Triflex Towersafe incl. Triflex Special Fleece. Volume: at least 3.00 kg/m² Triflex Special Fleece strip width: cm. Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Towersafe-7101)</p>	_____ /m	_____
7.2	_____ pc.	<p>Waterproofing hard-to-reach details Waterproofing with Triflex ProFibre. Please note: In areas where DIN 18531/the Flat Roof Guidelines are valid, Triflex ProFibre is classified as a special structure to be agreed upon with the client. Application according to the material manufacturer's technical guidelines.</p>	_____ /pc.	_____
7.3	_____ m	<p>Tower segment flange Waterproofing the tower segment flange with Triflex Towersafe incl. Triflex Special Fleece SK. Volume of Triflex Towersafe: at least 3.00 kg/m² Triflex Special Fleece SK width: cm. Application according to the material manufacturer's technical guidelines. (See Triflex system drawing Towersafe-7103)</p>	_____ /m	_____
8		<p>Triflex surface waterproofing</p>		
8.1	_____ m ²	<p>Surface waterproofing Waterproofing the surface with Triflex Towersafe incl. Triflex Special Fleece. Volume of Triflex Towersafe: at least 3.00 kg/m². Triflex Special Fleece strip width: cm. Application according to the material manufacturer's technical guidelines.</p>	_____ /m ²	_____

Amount carried forward: _____



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			Amount carried forward:	_____
9		Triflex wearing layer and finish		
9.1	_____ m ²	Surface "standard" Creating a non-slip surface that can withstand mechanical loads. Coating the surface with Triflex Towersafe, incl. dressing with a surplus of quartz sand, size 0.7-1.2 mm. Removing any surplus after curing. Finishing the surface with Triflex Towersafe Finish. Colour: at the discretion of the client. Volume of Triflex Towersafe: at least 1.00 kg/m ² . Volume of quartz sand (0.7-1.2 mm): at least 7.00 kg/m ² with a surplus. Volume of Triflex Towersafe Finish: at least 0.70 kg/m ² . Application according to the material manufacturer's technical guidelines.	_____ /m ²	_____
9.2	_____ m ²	"Smooth surface" version Creating a surface that can withstand mechanical loads. Coating the surface with Triflex Towersafe and finishing the surface with Triflex Towersafe Finish. Colour: at the discretion of the client. Volume of Triflex Towersafe: at least 1.00 kg/m ² . Volume of Triflex Towersafe Finish: at least 0.50 kg/m ² . Application according to the material manufacturer's technical guidelines.	_____ /m ²	_____
10		Hourly rates		
10.1	_____ hrs.	Hourly rate of a foreman:	_____ /hr.	_____
10.2	_____ hrs.	Hourly rate of a skilled trade worker:	_____ /hr.	_____
10.3	_____ hrs.	Hourly rate of an assistant:	_____ /hr.	_____
11		Materials		
11.1	_____ kg	Material consumption upon proof	_____ /kg	Unit price
12		Disposal		
12.1	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:		_____

