



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 design with Triflex SmartTec are covered by a European Technical Approval (ETA) 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. The waterproofing within the system design meets the requirements as per VV TB, No. C 3.28 for liquid-applied waterproofing of building structures set out in PG-FLK and as per VV TB, No. C 3.29 for liquid-applied waterproofing for roofs. A test certificate certifies the suitability for use of the waterproofing within the system design in conjunction with tiles and paving in accordance with the testing principles for the issuing of general building supervisory authority test certificates for waterproofing in conjunction with tiles and paving – Part 1: Liquid-applied waterproofing materials (PG-AiV-F). A VOC emissions test report from eurofins certifies the waterproofing system's indoor air comfort gold standard.

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 18533 – Waterproofing of elements in contact with soil
- 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 detail waterproofing system with a 1-component polyurethane base
- Seamless
- Cold-applied
- Immediately fully functional
- Solvent-free
- Flexible in low temperatures
- Vapour-permeable
- Full-surface adhesion on a multitude of substrates
- Root- and rhizome-resistant according to FLL standards
- Can be used in substrate temperatures of +5 °C and above
- Elastic and crack-bridging up to 3.0 mm based on PG-FLK
- Extremely weather-resistant (UV, IR, etc.)
- Fire classification as per 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
- Resistant to external fire exposure to DIN 4102 / DIN EN 13501
- 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



Specifications

Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
1		General information		
1.1	Lump sum	Building site preparation	lump sum	_____
2		Substrate pre-treatment		
2.1	_____ m ²	Mineral substrates Clean mineral substrates to remove any contamination. Remove loose components. Level off any unevenness. Remove any debris.	_____ /m ²	_____
2.2	_____ m ²	Defects Fill and level off any defects in the substrate with mineral concrete repair products. Average layer thickness:	_____ /m ²	_____
3		Substrate pretreatment (See Triflex SmartTec system description, substrate pre-treatment table).		
3.1	_____ m ²	Triflex Cleaner Preparation of the substrate by abrading with Triflex Cleaner. Consumption: at least 0.20 l/m ² E.g. for plastic sheeting PVC-P, nB, TPO, FPO, EPDM or moulded plastic parts made of PVC or FRP in accordance with the system description, substrate pre-treatment table.	_____ /m ²	_____
3.2	_____ m ²	Grinding Preparation of the substrate in accordance with the system description and the 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 ²	Roughening Preparation of the substrate by roughening. E.g. for plastic sheeting PVC-P, nB, TPO, FPO, EPDM or moulded plastic parts made of PVC or FRP in accordance with the system description, substrate pre-treatment table.	_____ /m ²	_____

Amount carried forward: _____



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4		Triflex Primer If necessary. See Triflex SmartTec system description, substrate pre-treatment table.		
4.1	_____ m ²	Priming of plastic sheeting PVC E.g. for plastic sheeting PVC-P, nB. Priming with Triflex Than Primer 533. Consumption: approx. 0.10 l/m ² Application as per 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 plastic sheeting FPO E.g. plastic sheeting TPO, FPO, EPDM. Priming for specific sheeting with Triflex Primer 610. Consumption: approx. 0.04-0.08 kg/m ² For advice on a case-by-case basis, please contact the Triflex Technical Advice Department. 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 bituminous substrates Priming with Triflex Bitumen Blocker Consumption: approx. 0.40 kg/m ² Application as per 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	_____
4.5	_____ m ²	Priming of metal E.g. anodised aluminium, galvanised metal, powder-coated metals. Priming with Triflex TecGrip 620. Consumption: approx. 0.10 kg/m ² Application as per the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	_____ /m ²	_____

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4.6	_____ pc.	Priming of PVC mouldings, rigid Priming with Triflex Primer 791. Consumption: approx. 0.20 kg/m ² Application as per the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	_____ /pc.	_____
4.7	_____ m	Priming SmartTec waterproofing For connection to existing Triflex SmartTec waterproofing. Priming with Triflex TecGrip 620. Width: 10 cm Consumption: approx. 0.10 kg/m ² Application as per the material manufacturer's technical guidelines. Adhesion to the substrate must be checked on a case-by-case basis.	_____ /m	_____
5		Triflex detail waterproofing Creation of detail waterproofing with Triflex SmartTec, including Triflex Special Fleece PF. The Triflex SmartTec waterproofing system has a general building supervisory authority test certificate (AbP) for liquid-applied waterproofing of building structures in accordance with PG-FLK as per VV TB, Part C, No. C 3.28. The Triflex SmartTec waterproofing system has been awarded ETA approval (ETA No. 17/0284) 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 root resistance as per FLL standards.		
5.1	_____ m	Wall junction Waterproofing of the wall junction with Triflex SmartTec, including Triflex Special Fleece PF. Triflex Special Fleece PF strip width: cm. Consumption of Triflex SmartTec: at least 3.00 kg/m ² Application as per the material manufacturer's technical guidelines. (See Triflex system drawing SmartTec-4102 or 4106)	_____ /m	_____

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Item no.	Quantity	Subject of service	Unit price EUR	Total price EUR
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5.2	_____ m	Base Waterproofing of the junction between the foundation and rising outer wall with Triflex SmartTec, including Triflex Special Fleece PF. Triflex Special Fleece PF strip width: cm. Consumption of Triflex SmartTec: at least 3.00 kg/m ² Application as per the material manufacturer's technical guidelines. (See Triflex system drawing SmartTec-4103 or 4107)	_____ /m	_____
5.3	_____ pc.	Penetration Waterproofing of the penetration with Triflex SmartTec, including Triflex Special Fleece PF. Triflex Special Fleece PF strip width: cm, d = cm. Consumption of Triflex SmartTec: at least 3.00 kg/m ² Application as per the material manufacturer's technical guidelines. (See Triflex system drawing SmartTec-4104 or 4108)	_____ /pc.	_____
5.4	_____ pc.	Light shaft Waterproofing of the light shaft with Triflex SmartTec, including Triflex Special Fleece PF. Triflex Special Fleece PF strip width: cm. Consumption of Triflex SmartTec: at least 3.00 kg/m ² Application as per the material manufacturer's technical guidelines.	_____ /pc.	_____
5.5	_____ pc.	Joint with cellar window Waterproofing of the junction between the cellar window frame and outer wall with Triflex SmartTec, including Triflex Special Fleece PF. Triflex Special Fleece PF strip width: cm. Consumption of Triflex SmartTec: at least 3.00 kg/m ² Application as per the material manufacturer's technical guidelines.	_____ /pc.	_____

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5.6	_____ pc.	<p>Hard-to-reach details Waterproofing with Triflex SmartTec Fibre. Consumption: at least 3.00 kg/m² Note: In areas in which DIN 18533/Flat Roof Guidelines are valid, Triflex SmartTec Fibre is classified as a special structure to be agreed upon with the client. Application as per the material manufacturer's technical guidelines.</p>	_____ /pc.	_____
6		<p>Triflex surface waterproofing Creation of detail waterproofing with Triflex SmartTec, including Triflex Special Fleece PF. The Triflex SmartTec waterproofing system has a general building supervisory authority test certificate (AbP) for liquid-applied waterproofing of building structures in accordance with PG-FLK as per VV TB, Part C, No. C 3.28. The Triflex SmartTec waterproofing system has been awarded ETA approval (ETA No. 17/0284) 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 root resistance as per FLL standards.</p>		
6.1	_____ m ²	<p>Surface waterproofing, version 1 Waterproofing of the area with Triflex SmartTec, including Triflex Special Fleece PF. Consumption of Triflex SmartTec: at least 3.00 kg/m² Application as per the material manufacturer's technical guidelines. (See Triflex system drawing SmartTec-4101)</p>	_____ /m ²	_____
6.2	_____ m ²	<p>Surface waterproofing underneath other covering, version 2 For subsequent recoating, e.g. plastering. Waterproofing of the area with Triflex SmartTec, including Triflex Special Fleece PF. Dress the fresh waterproofing with a surplus of quartz sand, grain size 0.7-1.2 mm. After it has cured, remove the excess. Consumption of Triflex SmartTec: at least 3.50 kg/m² Consumption of quartz sand: at least 7.00 kg/m² Application as per the material manufacturer's technical guidelines. (See Triflex system drawing SmartTec-4105)</p>	_____ /m ²	_____

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			Amount carried forward:	_____
7		Surface protection		
7.1	_____ m ²	Surface protection fleece Protection of the waterproofing from mechanical damage with protective fleece, 600 g/m ² . Make of protective layer: Application as per the material manufacturer's technical guidelines.	_____ /m ²	Unit price
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.	_____
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.	Lump sum	_____
		Net total:		_____
		Statutory VAT at _____%		_____
		Gross total:		_____