

Project: www.heinze.de/at-manager

LV name: SCHOMBURG

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
1	Building Waterproofing		
1.1	Waterproofing of building components made from concrete (waterproof concrete)		
1.1.1	Manufacture of waterproof concrete		
1.1.1.1	Internal concrete sealing with crystalline concrete admixtures		
	<p>The bidder must obtain information about the situation on-site before submitting the offer. Claims arising from lack of knowledge about the situation will not be accepted.</p> <p>Crystalline concrete admixture BETOCRETE</p> <p>To support the self-healing properties of waterproof concrete, a so-called crystalline concrete admixture can be used. The crystalline substance, which is distributed across the entire waterproof construction, reacts upon contact with water and fills in fine cracks and capillary pores with nano-crystals. The concrete must comply with all of the structural planning requirements and be ordered in accordance to the properties. For this purpose, preliminary testing must be carried out with the crystalline concrete admixture in the concrete plant.</p> <p>The crystalline concrete admixture BETOCRETE verifiably fulfils the properties as:</p> <ol style="list-style-type: none"> 1. BETOCRETE-CL170-P: Plasticizer in accordance with EN-934-2, table 2. 2. BETOCRETE-CL210-WP: Liquid waterproofer in accordance with EN-934-2, table 9. 3. BETOCRETE-CP360-WP: Powdered waterproofer in accordance with EN-934-2, table 9. 4. BETOCRETE-CP350-CI: Powdered crystalline admixture with added corrosion inhibitor <p>The technical documentation of SCHOMBURG GmbH, Aquafinstr. 2-8, 32760 Detmold, Tel. +49-5231-953-00 must be observed.</p>		
1.1.1.1.010	Concrete admixture: Plasticizer		
	<p>Liquid concrete admixtures for crystalline waterproofing, in this case as plasticizer in accordance with EN-934-2, table 2.</p> <p>Reduction of the water penetration under pressure of at least 8mm according to EN 12390-8.</p> <p>SCHOMBURG reference product BETOCRETE-CL170-P Material requirements: to be determined depending on the recipe (The quantity relates to the mixture of the concrete and the concrete admixture.)</p>		
	1 m³

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
1.1.1.1.020	<p>Concrete admixture: Waterproofer (liquid)</p> <p>Liquid concrete admixtures for crystalline waterproofing, in this case as a waterproofer in accordance with EN-934-2, table 9.</p> <p>Reduction of the water penetration under pressure of at least 8mm according to EN 12390-8.</p> <p>SCHOMBURG reference product BETOCRETE-CL210-WP Material requirements: to be determined depending on the recipe (The quantity relates to the mixture of the concrete and the concrete admixture.)</p>
	1 m ³		
1.1.1.1.030	<p>Concrete admixture: Waterproofer (powdered)</p> <p>Powdered concrete admixtures for crystalline waterproofing, in this case as a waterproofer in accordance with EN 934-2, table 9.</p> <p>Reduction of the water penetration under pressure of at least 8mm according to EN 12390-8.</p> <p>SCHOMBURG reference product BETOCRETE-CP360-WP Material requirements: to be determined depending on the recipe (The quantity relates to the mixture of the concrete and the concrete admixture.)</p>	.....	.....
	1 m ³		
1.1.1.1.040	<p>Concrete admixture: Crystalline effect with corrosion inhibitor (powdered)</p> <p>Powdered concrete admixtures for crystalline waterproofing including additional corrosion inhibitor.</p> <p>Reduction of the water penetration under pressure of at least 5mm according to EN 12390-8.</p> <p>SCHOMBURG reference product BETOCRETE-CP350-CI Material requirements: to be determined depending on the recipe (The quantity relates to the mixture of the concrete and the concrete admixture.)</p>	.....	.....
	1 m ³		
Total 1.1.1.1	Internal concrete sealing with crystalline concrete admixtures
Total 1.1.1	Manufacture of waterproof concrete

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
1.1.2	Injections of construction joints		
1.1.2.1	Construction joint sealing with injection hose (AQUAFIN CJ1)		
	<p>The bidder must obtain information about the situation on-site before submitting the offer. Claims arising from lack of knowledge about the situation will not be accepted.</p> <p>Injection hose for waterproofing of construction joints in concrete AQUAFIN-CJ1</p> <p>The injection hose is used for the waterproofing of building joints which are subject to continuous or occasional exposure to the effects of groundwater, hillside water and/or surface water. The structurally required construction joints can be force-fitting and water pressure-tight. The waterproofing injection of the AQUAFIN-CJ1 injection hose in construction joints in the system with the elastic polyurethane injection resin AQUAFIN-P4 has been generally approved by MPA Braunschweig (P-5032/9455).</p> <p>The technical documentation of SCHOMBURG GmbH, Aquafinstr. 2-8, 32760 Detmold, Tel. +49-5231-953-00 must be observed.</p>		
1.1.2.1.010	Preparation of the substrates		
	<p>Manufacture of a load-bearing, mostly level substrate with a sealed surface, free of gravel pockets, cavities, gaping cracks, dust and adhesion inhibiting substances. Laitance layers must be removed and cleared away mechanically.</p> <p>Chosen procedure:</p> <p>1 m</p>		

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
1.1.2.1.020	Injection hose laying Supply, assembly and laying of an injection hose for one-off grouting for subsequent injections with elastic PU injection resin into damp or water-retaining construction joints in accordance with the manufacturer's specifications. Laying takes place with a concrete covering of at least 8 cm to the water-conducting side with a maximum hose length of 10 m. Attachment and protection from floating takes place on the level substrate using fastening clips at intervals of max. 15 cm. Subsequent injection hoses are laid with an overlap of at least 10 cm. The currently valid building approval test certificate must be presented before the start of injection work. SCHOMBURG reference products: AQUAFIN-CJ1 Material requirement: approx. 1.00 m/m 1 m
1.1.2.1.030	Grouting of the injection hose Supply and application of an elastic PU injection resin in accordance with the manufacturer's specifications. Injection hose (concrete age at least 28 days) using commercially available injection pumps for polyurethane resins using the high-pressure waterproofing grouting procedure, including documentation of consumption. The injection hose must be re-injected at least once during the processing time of approx. 30 mins at +18 °C. SCHOMBURG reference products: AQUAFIN-P4 Material requirement: approx. 1.0 kg/running meter 1 m	.....	.....
1.1.2.1.040	Allowance for additional material consumption Allowance for pre-positioning "Grouting the injection hose" for additional material consumption of PU injection resin. 1 kg	.....	.....
Total 1.1.2.1	Construction joint sealing with injection hose (AQUAFIN CJ1)
Total 1.1.2	Injections of construction joints

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
1.1.3	Swelling joint tape		
1.1.3.1	Construction joint sealing with swelling joint tape made from thermoplastic (AQUAFIN-CJ6)		
	<p>The bidder must obtain information about the situation on-site before submitting the offer. Claims arising from lack of knowledge about the situation will not be accepted.</p> <p>Swelling joint tape made from thermoplastic AQUAFIN-CJ6 AQUAFIN-CJ6 is used for interior waterproofing of construction joints in concrete structures which are subject to continuous or occasional exposure to groundwater, hillside water and/or surface water. AQUAFIN-CJ6 is suitable for areas with fluctuating water levels. The construction joints can be made watertight at an installation depth of up to 8 m.</p> <p>The technical documentation of SCHOMBURG GmbH, Aquafinstr. 2-8, 32760 Detmold, Tel. +49-5231-953-00 must be observed.</p>		
1.1.3.1.010	Preparation of the substrates		
	<p>Manufacture of a load-bearing, mostly level substrate with a sealed surface, free of gravel pockets, cavities, gaping cracks, dust and adhesion inhibiting substances. Laitance layers must be removed and cleared away mechanically.</p> <p>Chosen procedure:</p> <p>1 m</p>		

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
1.1.3.1.020	Application of the thermoplastic swelling tape		
	<p>Supply and insertion of a thermoplastic swelling joint tape in a suitable assembly adhesive. The assembly adhesive is generously applied to the prepared substrate. The swelling joint tape must be pressed into the adhesive within the open time until it oozes out on the underside. The concreting process can take place no sooner than 8 hours after adhesion. The swelling joint tape must be arranged so that there is a concrete covering of at least 8 cm to the water-conducting side. Alternatively, swelling joint tape can also be secured using steel nails (min. 5 nails per metre). When doing so, it must be ensured that it is pressed onto the subsurface over the entire area. Avoid loop formation and cavities.</p> <p>The swelling behaviour is approx. 460% within 24h of application - in demineralised water.</p> <p>The allowed maximum water pressure is 2.0 bars.</p> <p>SCHOMBURG reference products: AQUAFIN-CJ6 Material consumption: 1.0 m/m</p>		
	1 m	.....	.....
1.1.3.1.030	Allowance for application of swelling tape		
	<p>Swelling joint tape can be applied with an overlap of at least 50 mm or butt-jointed. Butt-jointed swelling tape connections must be secured with a separate swelling tape with an overlap of at least 30 mm.</p> <p>SCHOMBURG reference products: AQUAFIN-CJ6 Material requirement: depending on application</p>		
	1 pcs	.....	.....
1.1.3.1.040	Supplying construction adhesive for fastening the swelling joint tape		
	<p>Supply of construction adhesive for fastening the swelling joint tape. This can also be used on a wet substrate. The assembly adhesive must fulfil the requirements of EMICODE EC1+.</p> <p>SCHOMBURG reference products: AQUAFIN-CA Material requirement: approx. 1 cartridge (pcs.) per 8 linear metres.</p>		
	1 pcs

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OZ	Quantity	Unit	Unit price EURO	Total amount EURO
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Total 1.1.3.1	Construction joint sealing with swelling joint tape made from thermoplastic (AQUAFIN-CJ6)		
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OZ	Quantity Unit	Unit price EURO	Total amount EURO
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1.1.3.2 **Construction joint sealing with swelling joint tape made from bentonite with rain protection (AQUAFIN-CJ4)**

The bidder must obtain information about the situation on-site before submitting the offer. Claims arising from lack of knowledge about the situation will not be accepted.

Swelling joint tape made from bentonite with rain protection

AQUAFIN-CJ4 AQUAFIN-CJ4 is used for the internal waterproofing of construction joints in concrete structures which are subject to continuous or occasional exposure to groundwater, hillside water and/or surface water. Use in water exchange zones is possible. AQUAFIN-CJ4 is characterised by a strong, quick and reliable swelling behaviour whereby the protective coating applied in the factory effectively delays premature swelling caused by rain.

The technical documentation of SCHOMBURG GmbH, Aquafinstr. 2-8, 32760 Detmold, Tel. +49-5231-953-00 must be observed.

1.1.3.2.010 **Preparation of the substrates**

Manufacture of a load-bearing, mostly level substrate with a sealed surface, free of gravel pockets, cavities, gaping cracks, dust and adhesion inhibiting substances. Laitance layers must be removed and cleared away mechanically.

Chosen procedure:

1 m

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
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1.1.3.2.020 Application of bentonite swelling tape with rain protection

Supply and insertion of a bentonite swelling joint tape in a suitable assembly adhesive. The assembly adhesive is generously applied to the prepared substrate. The swelling joint tape must be pressed into the adhesive within the open time until it oozes out on the underside. The concreting process can take place no sooner than 8 hours after adhesion. The swelling joint tape must be arranged so that there is a concrete covering of at least 8 cm to the water-conducting side. Alternatively, swelling joint tape can also be secured using steel nails (min. 5 nails per metre). When doing so, it must be ensured that it is pressed onto the subsurface over the entire area. Avoid loop formation and cavities.

Premature swelling is prevented by the rain protection coating for up to 3 days. The swelling behaviour is approx. 500% within 8 days of application - in demineralised water.

The allowed maximum water pressure is 2.0 bars.

SCHOMBURG reference products:

AQUAFIN-CJ4

Material consumption: 1.0 m/m

1 m

1.1.3.2.030 Allowance for application of swelling tape

Swelling joint tape can be applied with an overlap of at least 50 mm or butt-jointed. Butt-jointed swelling tape connections must be secured with a separate swelling tape with an overlap of at least 30 mm.

SCHOMBURG reference products:

AQUAFIN-CJ4

Material requirement: depending on application

1 pcs

1.1.3.2.040 Supplying construction adhesive for fastening the swelling joint tape

Supply of construction adhesive for fastening the swelling joint tape. This can also be used on a wet substrate. The assembly adhesive must fulfil the requirements of EMI CODE EC1+.

SCHOMBURG reference products:

AQUAFIN-CA

Material requirement: approx. 1 cartridge (pcs.) per 8 linear metres.

1 pcs

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OZ	Quantity	Unit	Unit price EURO	Total amount EURO
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Total 1.1.3.2	Construction joint sealing with swelling joint tape made from bentonite with rain protection (AQUAFIN-CJ4)		
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OZ	Quantity Unit	Unit price EURO	Total amount EURO
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1.1.3.3 **Construction joint sealing with swelling joint tape made from bentonite (AQUAFIN-CJ3)**

The bidder must obtain information about the situation on-site before submitting the offer. Claims arising from lack of knowledge about the situation will not be accepted.

Swelling joint tape made from bentonite AQUAFIN-CJ 3

AQUAFIN-CJ3 is used for the internal waterproofing of construction joints in concrete structures which are subject to continuous or occasional exposure to groundwater, hillside water and/or surface water. Use in water exchange zones is straightforward. AQUAFIN-CJ3 is characterised by a strong, quick and reliable swelling behaviour.

The technical documentation of SCHOMBURG GmbH, Aquafinstr. 2-8, 32760 Detmold, Tel. +49-5231-953-00 must be observed.

1.1.3.3.010 **Preparation of the substrates**

Manufacture of a load-bearing, mostly level substrate with a sealed surface, free of gravel pockets, cavities, gaping cracks, dust and adhesion inhibiting substances. Laitance layers must be removed and cleared away mechanically.

Chosen procedure:

1 m

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
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1.1.3.3.020	<p>Application of the bentonite swelling tape</p> <p>Supply and insertion of a bentonite swelling joint tape in a suitable assembly adhesive. The assembly adhesive is generously applied to the prepared substrate. The swelling joint tape must be pressed into the adhesive within the open time until it oozes out on the underside. The concreting process can take place no sooner than 8 hours after adhesion. The swelling joint tape must be arranged so that there is a concrete covering of at least 8 cm to the water-conducting side. Alternatively, swelling joint tape can also be secured using steel nails (min. 5 nails per metre). When doing so, it must be ensured that it is pressed onto the subsurface over the entire area. Avoid loop formation and cavities.</p> <p>The swelling behaviour is approx. 500% within 8 days of application in demineralised water.</p> <p>The allowed maximum water pressure is 2.0 bars.</p> <p>SCHOMBURG reference products: AQUAFIN-CJ3 Material consumption: 1.0 m/m</p> <p>1 m</p>		
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1.1.3.3.030	<p>Allowance for application of swelling tape</p> <p>Swelling joint tape can be applied with an overlap of at least 50 mm or butt-jointed. Butt-jointed swelling tape connections must be secured with a separate swelling tape with an overlap of at least 30 mm.</p> <p>SCHOMBURG reference products: AQUAFIN-CJ3 Material requirement: depending on application</p> <p>1 pcs</p>		
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1.1.3.3.040	<p>Supplying construction adhesive for fastening the swelling joint tape</p> <p>Supply of construction adhesive for fastening the swelling joint tape. This can also be used on a wet substrate. The assembly adhesive must fulfil the requirements of EMICODE EC1+.</p> <p>SCHOMBURG reference products: AQUAFIN-CA Material requirement: approx. 1 cartridge (pcs.) per 8 linear metres.</p> <p>1 pcs</p>		
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OZ	Quantity Unit	Unit price EURO	Total amount EURO
Total 1.1.3.3	Construction joint sealing with swelling joint tape made from bentonite (AQUAFIN-CJ3)	
Total 1.1.3	Swelling join tapes in accordance with DAfStb guideline "Watertight buildings made from concrete"	

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
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1.1.4 **Joint sheets**

1.1.4.1 **Construction joint sealing with crystalline coated joint sheet (AQUAFIN-CJ5)**

The bidder must obtain information about the situation on-site before submitting the offer. Claims arising from lack of knowledge about the situation will not be accepted.

Crystalline-coated joint sheet AQUAFIN-CJ5

AQUAFIN-CJ5 is used for interior waterproofing of construction joints in concrete structures which are subject to continuous or occasional exposure to groundwater, hillside water and/or surface water. The joint sheet thus works both actively through a permanent bond with the concrete as well as passively through circumference extension. Additionally, a self-healing of the joint will take place thanks to the crystalline effect.

The technical documentation of SCHOMBURG GmbH, Aquafinstr. 2-8, 32760 Detmold, Tel. +49-5231-953-00 must be observed.

1.1.4.1.010 **Preparation of the substrates**

Manufacture of a load-bearing, mostly level substrate with a sealed surface, free of gravel pockets, cavities, gaping cracks, dust and adhesion inhibiting substances. Laitance layers must be removed and cleared away mechanically.

Chosen procedure:

1 m

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1.1.4.1.020	<p>Application of the coated joint sheet</p> <p>Delivery and installation of the AQUAFIN-CJ5 joint sheet with crystalline coating on both sides for sealing horizontal and vertical construction joints from pressing water and non-pressing water as well as ground moisture. Delivery including all of the required fasteners (mounting brackets, joint clamps). Installation takes place taking the manufacturer's specifications into consideration in accordance with ETA-18/1106 and abP P-1202/099/19 MPA-Braunschweig</p> <p>With an overlap of ≥ 20 cm, the allowed maximum water pressure is 5.0 bars.</p> <p>SCHOMBURG reference products:</p> <p>AQUAFIN-CJ5 Joint sheet width: 150 mm Joint sheet length: 2000 mm Packaging: 100 m packed in a crate, with 50 retaining clamps incl. Material requirements: approx. 1.05 m/m</p> <p>1 m</p>		
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1.1.4.1.030	<p>Supplying retaining clamps as an allowance for overlapping</p> <p>Supply of additional retaining clamps for crystalline coated joint sheets. The retaining clamps are used to produce overlapping which prevents water from running behind.</p> <p>SCHOMBURG reference products:</p> <p>Approx. 1 retaining clamp per 10 cm of sheet overlap. (50 retaining clamps are included in the scope of delivery with per 100 m of joint sheet.)</p> <p>1 pcs</p>		
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1.1.4.1.040	<p>Supplying omega clamps for securing in the reinforcement</p> <p>Supply of omega clamps for crystalline coated joint sheets for binding and securing the sheets in the reinforcement.</p> <p>SCHOMBURG reference products:</p> <p>Omega clamp Material requirement: approx. 1 clamp per m of joint sheet</p> <p>1 pcs</p>		
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OZ	Quantity	Unit	Unit price EURO	Total amount EURO
Total 1.1.4.1	Construction joint sealing with crystalline coated joint sheet (AQUAFIN-CJ5)		
Total 1.1.4	Joint sheet		

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
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1.1.5 **Waterstops**

1.1.5.1 **Waterproofing of construction and movement joints with joint tape made from PVC (AQUAFIN-EJ-W)**

The bidder must obtain information about the situation on-site before submitting the offer. Claims arising from lack of knowledge about the situation will not be accepted.

AQUAFIN-EJ-W joint tapes in accordance with factory standard with abP

AQUAFIN-EJ is used for interior and exterior waterproofing of movement joints in concrete structures which are subject to continuous or occasional loads from pressure water and non pressure water.

Making connections on the building site

Joint strips are connected by means of welding. The halves to be connected are melted and joined together whilst in a plastic state. For this purpose, the two ends are cut straight and right-angled and then placed in a welding device (e.g. Formtri SG 320 L). The halves to be joined together are aligned; heated/melted; shifted; joined together and cooled by the ambient temperature. Each device comes with the applicable welding instructions. After the welding process, check the seam and rework or secure it if necessary.

The technical documentation of SCHOMBURG GmbH, Aquafinstr. 2-8, 32760 Detmold, Tel. +49-5231-953-00 must be observed.

1.1.5.1.010 **Preparation of the substrates**

Manufacture of a load-bearing, mostly level substrate with a sealed surface, free of gravel pockets, cavities, gaping cracks, dust and adhesion inhibiting substances. Laitance layers must be removed and cleared away mechanically.

Chosen procedure:

1 m

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
1.1.5.1.020	<p>Application of internal construction joint waterstop</p> <p>Internal construction joint tape made from PVC for construction joints in the concrete construction for coating horizontal and vertical construction joints from pressing and non-pressing as well as ground moisture.</p> <p>The allowed maximum water pressure is 5.0 bars.</p> <p>SCHOMBURG reference products:</p> <p>AQUAFIN-EJ-WHF-D-240 and AQUAFIN-EJ-WHF-D-300 Elongation at break: ≥ 300% Thickness of the expanding part: 3 mm Wide: 240 mm or 300 mm Required: approx 1.00m / linear meter</p>	<p>.....</p>	<p>.....</p>
	1 m		
1.1.5.1.030	<p>Application of external construction joint waterstop</p> <p>External construction joint tape made from PVC for construction joints in the concrete construction for sealing horizontal and vertical construction joints from pressing water and non-pressing water as well as ground moisture.</p> <p>The allowed maximum water pressure is 5.0 bars.</p> <p>SCHOMBURG reference products:</p> <p>AQUAFIN-EJ-WR-D300 Elongation at break: ≥ 300% Thickness of the expanding part: 3mm Wide: 300mm Required: approx. 1.00m / linear meter</p>	<p>.....</p>	<p>.....</p>
	1 m		
1.1.5.1.040	<p>Application of internal movement joint waterstop</p> <p>Internal movement joint tape made from PVC for expansion joints in the concrete construction for sealing horizontal and vertical joints from pressing and non-pressing water as well as ground moisture.</p> <p>The allowed maximum water pressure is 5.0 bars.</p> <p>SCHOMBURG reference products:</p> <p>AQUAFIN-EJ-WHF-D-240 and AQUAFIN-EJ-WHF-D-300 Elongation at break: ≥ 300% Thickness of the expanding part: 3 mm Stop anchor quantity: 4 Wide:240 mm or 300 mm Required: approx 1.00m / linear meter</p>	<p>.....</p>	<p>.....</p>
	1 m		

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
1.1.5.1.050	<p>Application of external movement joint waterstop</p> <p>External movement joint tape made from PVC for construction joints in the concrete construction for sealing horizontal and vertical construction joints from pressing water and non-pressing water as well as ground moisture.</p> <p>The allowed maximum water pressure is 5.0 bars.</p> <p>SCHOMBURG reference products:</p> <p>AQUAFIN-EJ-WR-D300 Elongation at break: ≥ 300% Thickness of the expanding part: 3 mm Stop anchor quantity: 4 Width: 300mm Required: approx. 1.00m / linear meter</p>		
	1 m	.....	.....
1.1.5.1.060	<p>Allowance for welded waterstop moulded parts, flat corners</p> <p>Supply and installation of joint tape moulded parts, welded by the contractor in the plant, manufactured as an allowance for the joint tape in the above-mentioned position, here: flat corners.</p>		
	1 pcs	.....	.....
1.1.5.1.070	<p>Allowance for welded waterstop moulded parts, perpendicular corners</p> <p>Supply and installation of joint tape moulded parts, welded by the contractor in the plant, manufactured as an allowance for the joint tape in the above-mentioned position, here: perpendicular corners.</p>		
	1 pcs	.....	.....
1.1.5.1.080	<p>Allowance for welded waterstop moulded parts, flat T-piece</p> <p>Supply and installation of joint tape moulded parts, welded by the contractor in the plant, manufactured as an allowance for the joint tape in the above-mentioned position, here: flat T-piece.</p>		
	1 pcs

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1.1.5.1.090	<p>Allowance for welded waterstop moulded parts, perpendicular T-piece</p> <p>Supply and installation of joint tape moulded parts, welded by the contractor in the plant, manufactured as an allowance for the joint tape in the above-mentioned position, here: perpendicular T-piece.</p>		
	1 pcs	.....	.....
1.1.5.1.100	<p>Allowance for welded waterstop moulded parts, flat junction</p> <p>Supply and installation of joint tape moulded parts, welded by the contractor in the plant, manufactured as an allowance for the joint tape in the above-mentioned position, here: flat junction.</p>		
	1 pcs	.....	.....
1.1.5.1.110	<p>Allowance for welded waterstop moulded parts, perpendicular junction</p> <p>Supply and installation of joint tape moulded parts, welded by the contractor in the plant, manufactured as an allowance for the joint tape in the above-mentioned position, here: perpendicular junction</p>		
	1 pcs	.....	.....
1.1.5.1.120	<p>Allowance for building site joining</p> <p>Joints are completed on-site in accordance with the manufacturer's specifications. They must be manufactured professionally and the technical notes of the manufacturer must be observed.</p>		
	1 pcs	.....	.....
Total 1.1.5.1	Waterproofing of construction and movement joints with waterstops from PVC (AQUAFIN-EJ-W)	
Total 1.1.5	Waterstops	

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
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1.1.6 **Waterproofing with fresh concrete waterproofing membrane**

1.1.6.1 **Waterproofing with fresh concrete waterproofing membrane system (AQUAFIN-WM12)**

The bidder must obtain information about the situation on-site before submitting the offer. Claims arising from lack of knowledge about the situation will not be accepted.

Fresh concrete waterproofing membrane system

The sheet, consisting of a 1.2 mm thick, transparent PVC sheet with strengthened polypropylene fleece, is the main part of the fresh concrete waterproofing membrane system.

The sheet combined with waterproof concrete for external sealing from pressing and non-pressing water as well as ground moisture is used on components with demanding structural use (elevator shafts, computer centres, etc.). The sheet prevents water from running behind due to the mechanical bond with the fresh concrete. It corresponds to DIN SPEC 20000-202 as well as DIN EN 13967.

The sheet must be applied over construction joints. Additional measures are necessary for movement joints.

The technical documentation of SCHOMBURG GmbH, Aquafinstr. 2-8, 32760 Detmold, Tel. +49-5231-953-00 must be observed.

1.1.6.1.010 **Preparation of the substrates**

Manufacture of a load-bearing, mostly level, pressure resistant substrate with a sealed surface, free of gravel pockets, cavities, gaping cracks, dust and adhesion inhibiting substances, sharp-edged or pointed components. Laitance layers must be removed and cleared away mechanically.

Chosen procedure:

1 m

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
1.1.6.1.020	<p>Waterproofing with fresh concrete sheets</p> <p>The sheets must be laid in accordance with the manufacturer's laying guidelines in strips, overlapping in the horizontal and vertical area (min. 5 cm) before concreting. The ends are connected by means of welding or bonding (always welded when used as waterproofing in accordance with DIN 18533). Formwork may not become deformed during the concreting work. In the case of vertical applications, the top finishing rail must be secured using suitable measures.</p> <p>All overlaps and offcuts are included in the calculation of the unit price. Billing takes place in accordance with the actual area.</p> <p>The allowed maximum water pressure is 5.0 bars.</p> <p>SCHOMBURG reference products:</p> <p>AQUAFIN-WM12 Dimensions: 1.20m x 25m x 1.2mm = 30m² Required: approx 1.00m²/m²</p> <p>PVC tape Dimensions: 180mm x 2mm x 50m or 500mm x 1.2mm x 50m Required: determined for the building site</p>	<p>.....</p>	<p>.....</p>
1.1.6.1.030	<p>Waterproofing butt joints, position requirements</p> <p>Butt joints in the fresh concrete composite system are technically coordinated to the corresponding object-related marginal conditions. Specifically, the following joining techniques can be applied:</p> <ul style="list-style-type: none"> () Jointing using thermal welding () Jointing using swell welding () Jointing using assembly adhesive <p>SCHOMBURG reference products AQUAFIN-CA assembly adhesive</p>	<p>.....</p>	<p>.....</p>
1.1.6.1.040	<p>Waterproofing with fresh concrete sheets, allowance for coves</p> <p>Complementary waterproofing on recesses designed as coves, e.g. foundations, elevators, sump pumps, etc., as an allowance for the waterproofing of the above-mentioned position,</p> <p>SCHOMBURG reference products:</p> <p>AQUAFIN-WM12 Dimensions: 1.20m x 25m x 1.2mm = 30m² Required: approx 1.00m²/m²</p>	<p>.....</p>	<p>.....</p>

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
1.1.6.1.050	<p>Waterproofing with fresh concrete sheets, allowance for wall formwork</p> <p>Vertical fresh concrete sheets in the area of single and double-skin wall formwork, as an allowance for the waterproofing of the above-mentioned position.</p> <p>SCHOMBURG reference products:</p> <p>AQUAFIN-WM12 Dimensions: 1.20m x 25m x 1.2mm = 30m² Required: approx 1.00m²/m²</p>		
	1 m²	.....	.....
1.1.6.1.060	<p>Waterproofing with fresh concrete sheets, allowance for outer corners</p> <p>Prefabricated outer corners made from PVC suitable for fresh concrete waterproofing membrane system supplied for the waterproofing of outer corners and laid in accordance with the manufacturer's laying guidelines, as an allowance for the waterproofing of the above-mentioned position.</p> <p>SCHOMBURG reference products:</p> <p>AQUAFIN-WM12 outer corner Requirement: 1 pcs. per outer corner</p>		
	1 pcs	.....	.....
1.1.6.1.070	<p>Waterproofing with fresh concrete sheets, allowance for inner corners</p> <p>Prefabricated inner corners made from PVC suitable for fresh concrete waterproofing membrane system supplied for the waterproofing of outside corners and laid in accordance with the manufacturer's laying guidelines, as an allowance for the waterproofing of the above-mentioned position.</p> <p>SCHOMBURG reference products:</p> <p>AQUAFIN-WM12 internal corner Requirement: 1 pcs. per outer corner</p>		
	1 pcs

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
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1.1.6.1.080	<p>Waterproofing with fresh concrete sheets, allowance for floor slab protrusions</p> <p>Fresh concrete waterproofing membrane system supplied for the waterproofing of floor slab protrusions and laid in accordance with manufacturer's laying guidelines, as an allowance for the waterproofing of the above-mentioned position.</p> <p>SCHOMBURG reference products AQUAFIN-WM12 Dimensions: 1.20m x 25m x 1.2mm = 30m² Required: approx 1.00m²/m²</p> <p>1 m²</p>
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1.1.6.1.090	<p>Waterproofing with fresh concrete sheets, allowance for concrete base / wall pipe penetrations</p> <p>Fresh concrete waterproofing membrane system supplied for the waterproofing of concrete base / wall pipe penetration and laid in accordance with manufacturer's laying guidelines, as an allowance for the waterproofing of the above-mentioned position.</p> <p>SCHOMBURG reference products AQUAFIN-WM12 Dimensions: 1.20m x 25m x 1.2mm = 30m² intersection diameter up to mm Required: approx. 1.00m²/m²</p> <p>1 pcs</p>
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1.1.6.1.100	<p>Waterproofing with fresh concrete sheets, allowance for clamping location</p> <p>Fresh concrete waterproofing membrane system supplied for the waterproofing of the clamping location and laid in accordance with the manufacturer's laying guidelines, as an allowance for the waterproofing of the above-mentioned position.</p> <p>SCHOMBURG reference products AQUAFIN-WM12 Dimensions: 1.20m x 25m x 1.2mm = 30m² Required: approx 1.00m²/m²</p> <p>1 pcs</p>
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OZ	Quantity Unit	Unit price EURO	Total amount EURO
1.1.6.1.110	<p>Waterproofing with fresh concrete sheets, allowance for the bored pile head connection</p> <p>Fresh concrete waterproofing membrane system supplied for the waterproofing of the bored pile head connection and laid in accordance with the manufacturer's laying guidelines, as an allowance for the waterproofing of the above-mentioned position.</p> <p>SCHOMBURG reference products AQUAFIN-WM12 Dimensions: 1.20m x 25m x 1.2mm = 30m² bored pile head diameter up tomm Required: approx. 1.00m²/m²</p> <p>1 pcs</p>	<p>.....</p>	<p>.....</p>
Total 1.1.6.1	Waterproofing with fresh concrete waterproofing membrane system (AQUAFIN-WM12)		<p>.....</p>
Total 1.1.6	Waterproofing with fresh concrete waterproofing membrane system		<p>.....</p>

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
1.1.7	Waterproofing of pipe penetrations		
1.1.7.1	Waterproofing of pipe penetrations with swelling joint tape made from thermoplastic (AQUAFIN-CJ6)		
1.1.7.1.010	Preparation of the substrates		
	<p>Manufacture of a load-bearing, mostly level substrate with a sealed surface, free of gravel pockets, cavities, gaping cracks, dust and adhesion inhibiting substances. Laitance layers must be removed and cleared away mechanically.</p> <p>Chosen procedure:</p>		
	1 pcs	.....	.....
1.1.7.1.020	Sealing of intersections with thermoplastic swelling joint tape		
	<p>Supply and insertion of a thermoplastic swelling jointing tape into a suitable assembly adhesive on the intersection. The assembly adhesive is generously applied to the prepared substrate. The swelling joint tape must be pressed into the adhesive within the open time until it oozes out on the underside. The concreting process can take place no sooner than 8 hours after adhesion. The swelling joint tape must be arranged so that there is a concrete covering of at least 8 cm to the water-conducting side. When doing so, it must be ensured that it is pressed onto the subsurface over the entire area. Avoid loop formation and cavities.</p> <p>The swelling behaviour is approx. 460% within 24h of application - in demineralised water.</p> <p>The allowed maximum water pressure is 2.0 bars.</p> <p>SCHOMBURG reference products:</p> <p>AQUAFIN-CJ6 Material requirement: approx. 1.0 m / linear meter.</p> <p>AQUAFIN-CA Material requirement: approx. 1 cartridge (pcs.) per 8 linear metres.</p>		
	1 pcs	.....	.....
Total 1.1.7.1	Waterproofing of intersections with swelling joint tape made from thermoplastic (AQUAFIN-CJ6)	

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
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1.1.7.2 Waterproofing of intersections with cementitious coated pre-made penetrations (AQUAFIN-PP)

1.1.7.2.010 Preparation of the substrates

Manufacture of a load-bearing, mostly level substrate with a sealed surface, free of gravel pockets, cavities, gaping cracks, dust and adhesion inhibiting substances. Laitance layers must be removed and cleared away mechanically.

Chosen procedure:

1 pcs

1.1.7.2.020 Sealing of floor ducts

Floor duct with cementitious coating, verified watertight up to 5 bar with sealing profile of approx. 12 cm. Install the floor duct in accordance with the manufacturer's laying guidelines.

SCHOMBURG reference products:
 Dimensions: approx. 50cm long, diameter:
 () AQUAFIN-PP-F-110
 () AQUAFIN-PP-F-160
 () AQUAFIN-PP-F-200
 Material consumption: 1 pcs. per intersection

1 pcs

1.1.7.2.030 Sealing of the wall ducts

Wall ducts with cementitious coating, verified watertight up to 5 bar with double-sided plug-in sleeve. Install the wall duct in accordance with the manufacturer's laying guidelines.

SCHOMBURG reference products:
 Dimensions: Length must be determined according to the wall diameter, available diameter: DN 110, DN160 and DN200:
 () AQUAFIN-PP-W110-24, AQUAFIN-PP-W-110-24, AQUAFIN-PP-W110-24
 () AQUAFIN-PP-W160-24, AQUAFIN-PP-W160-30, AQUAFIN-PP-W160-36
 () AQUAFIN-PP-W200-24, AQUAFIN-PP-W200-30, AQUAFIN-PP-W200-36
 Material consumption: 1 pcs. per intersection

1 pcs

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OZ	Quantity Unit	Unit price EURO	Total amount EURO
Total 1.1.7.2	Waterproofing of pipe penetrations with cementitious coated pipe penetrations (AQUAFIN-PP)	
Total 1.1.7	Waterproofing of pipe penetrations		.....
Total 1.1	Waterproofing of building components made from concrete (waterproof concrete)	
Total 1	Building Waterproofing	

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OZ	Compilation	Sum total
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1	Building Waterproofing
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	Sum total for composition:
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	Sum total, net:
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	Plus 19% VAT:
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	Sum total incl. VAT:
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