CONTEC
BY DYWIDAG

CONTEC®
Sealing Technologies

CONTEC
BY DYWIDAG

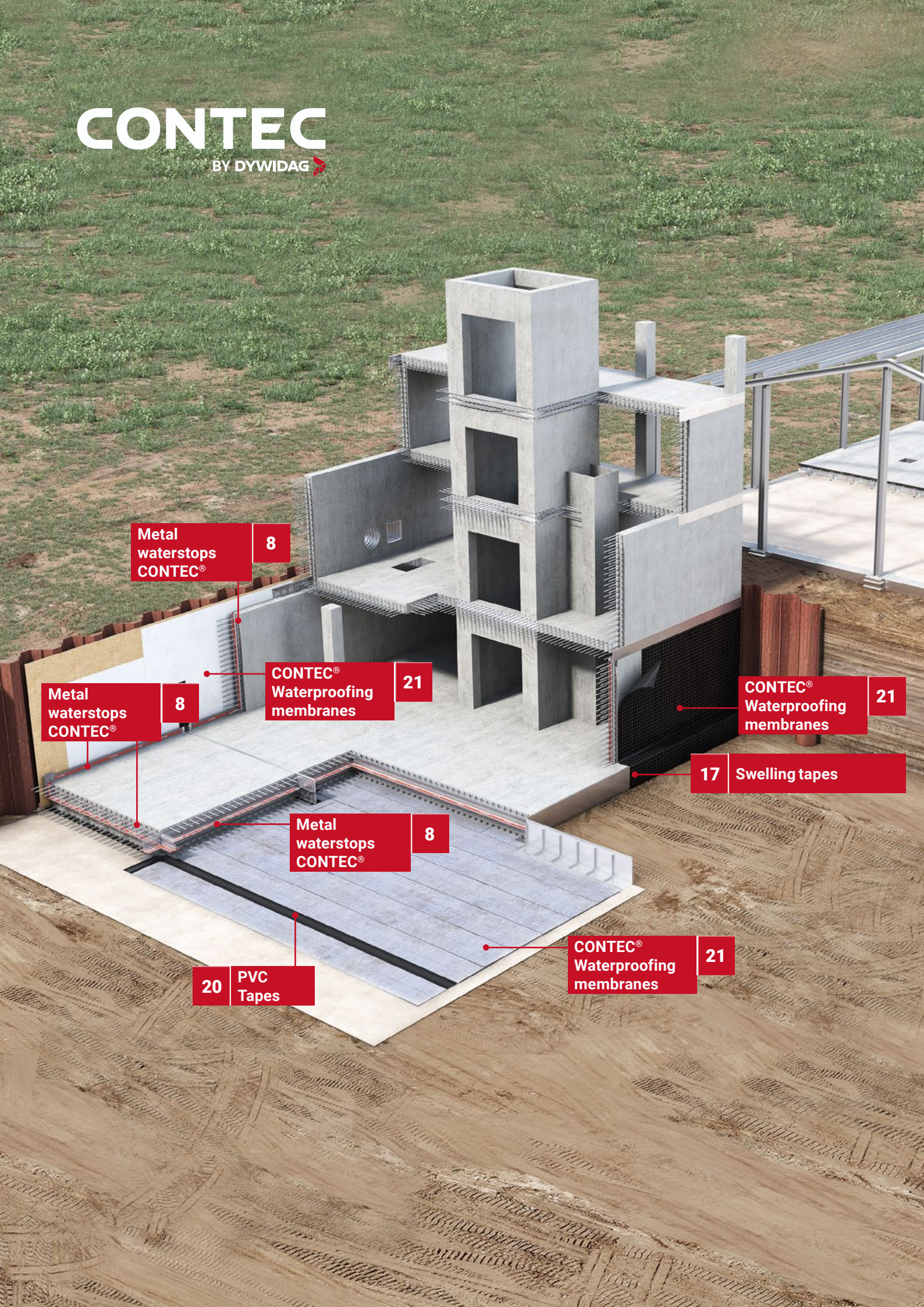


Table of contents

Supporting infrastructure by making it safe and strong has been our story since 1865.

We've grown to 1,500+ employees and 25 licensees in 50+ countries.

From the steel in our first reinforced bridge in 1903, to remote robots scanning stay cable health - we help extend the lifespan of the world's new and aging infrastructure.

Private and public asset owners, engineers, and construction companies use our technology for projects across sectors like bridges, buildings, ground stabilization, wind towers, and tunnels. Projects include The Golden Gate Bridge, Panama Canal, Kap Shui Mun Bridge, and Freedom Tower.

The needs of infrastructure have changed - and so have we.
Our roots? Bridges, one of the most complex civil structures, which require safety and strength in all kinds of demanding environments. Although we were founded as a concrete company, that changed in the early 20th century when we found our focus as a multi-sector civil construction project (and maintenance) sub-contractor.

For over 100 years, the main product the construction industry thinks of after hearing DYWIDAG, is our threadbar - likely found in a significant amount of the infrastructure in your city.

DYWIDAG is a well-known company for geotechnics and post tensioning. But there's more: DYWIDAG Form tie systems, sealing technologies CONTEC®, lost formwork and reinforcement technologies RECOSTAL® which are one business unit called DYWIDAG Concrete Technologies.

Our technologies are widely recognized for highly secure systems.
Our main production is in Poland and Germany. Products carry approvals to international quality standards.
The coating of the metal waterstops consists of highly swelling bentonite.

Our timeline:

1865 Dyckerhoff & Widmann AG (DYWIDAG) founded a small concrete construction company.

1950 DYWIDAG starts license business for construction systems with bridge post-tensioning at its core.

1979 DYWIDAG SYSTEMS INTERNATIONAL (DSI) founded to expand international business. Invests in R&D and a second global segment: geotechnics.

2006 DSI enters the European concrete accessories market by making acquisitions in France and Germany: Arteon, Technique Beton, Mandelli-Setra, Contec®.

2011 Private equity investor Triton becomes the new shareholder of DSI.

2016 Development of construction activities in Middle East & Asia, including new joint ventures in Qatar and India.

2018 Alpin Technik and Datum Group acquired to empower DSI's robotics and monitoring.

2018 Concrete accessories created as a Business Unit within DYWIDAG.

2019 DSI acquires PARTEC.

2020 DSI rebrands as DYWIDAG.

2021 DY.CO launched as a new Pan-European Business Unit of DYWIDAG.

2023 DY.CO rebrands as DYWIDAG Concrete Technologies.

DYWIDAG® CONCRETE TECHNOLOGIES

- **40+** years of experience
- Resellers in **40+** countires
- Tailor-made products
- Quality and safety orientation
- Made in Europe

Applications

- Commercial Buildings
- Residential Construction
- Civil Engineering
- Precast Concrete Elements
- Structural Repair

Customers

- General Contractors
- Distributors
- Applicators

Our product brands

RECOSTAL® Reinforcement Technologies

RECOSTAL® Lost Formwork Technologies

CONTEC® Sealing Technologies

DYWIDAG® Surface Sealing Technologies

DYWIDAG® Form Ties Systems

End markets

Construction
Commercial buildings/ Residential/ Non-residential/ Hospital/ Datacenter

Agriculture
Biogas plants/ Silage storage

Industrial
Production/ Warehouse

Power
Nuclear power plant/ Hydroelectric power plant

Infrastructure
Tunnels/ Bridges

Applications of CONTEC® Technology

CONTEC® internal and external seals are used in a wide range of construction projects where advanced waterproofing solutions are required, particularly in concrete structures. The **CONTEC®** technology is valued for its ability to reliably seal even under challenging conditions, such as high humidity, fluctuating water pressure, and dynamic mechanical loads. Additionally, the ease of installation and adaptability to specific project requirements make it widely used in modern construction. Voltex waterproofing membranes are used to protect buildings and underground structures from water. Their key ingredient is bentonite, a material that swells when in contact with water, creating a tight waterproof barrier. By combining bentonite granules with fabric and polypropylene nonwoven material, these membranes offer exceptional resistance to hydrostatic pressure and self-sealing properties.

Application areas for CONTEC® technology:

Underground Structures

- Building foundations: Sealing joints in areas exposed to groundwater and insulating foundations and basements in general construction, especially in areas with high groundwater levels.
- Underground garages: Sealing between walls and foundations.
- Tunnels and elevator shafts: Protection against water infiltration in underground structures.

Water Structures

- Retention tanks and swimming pools: Sealing concrete joints in facilities constantly exposed to water.
- Dams and reservoirs: Insulation in concrete elements exposed to high hydrostatic pressure.
- Sewage treatment plants: Protection against the penetration of water and aggressive liquids.

Prefabricated Concrete Structures

- Prefabricated joints: Sealing at the connections of prefabricated walls and foundation slabs.
- Critical areas: Sealing in crucial areas, such as joints between ceiling slabs and walls.

Transport Infrastructure

- Roads and bridges: Sealing of expansion joints and connections in structural elements exposed to rain and water from the ground.
- Metro stations: Insulation of concrete joints in underground spaces.
- Tunnels and underground passages: Waterproofing membranes protect structures from water infiltration, increasing their durability and safety.

Industrial Facilities

- Industrial plants: Sealing in buildings exposed to moisture and aggressive chemicals.
- Waste disposal sites: Waterproofing membranes used as waterproofing for municipal and industrial waste disposal sites, preventing the migration of harmful substances.
- Warehouses: Protection against water in facilities with specific environmental requirements.

Selected projects with CONTEC® solutions

The FAIR particle accelerator facility, Germany

YEAR OF EXECUTION: 2017 - present
CLIENT/OWNER: FAIR GmbH was established by nine countries: Germany, Finland, France, India, Poland, Romania, Russia, Slovenia and Sweden
GENERAL CONTRACTOR: Tunnel PORR
PRODUCTS: CONTEC® Waterproofing membranes

Terminal 3 Fraport Frankfurt Airport, Germany

YEAR OF EXECUTION: 2019 - 2021
CLIENT/OWNER: Fraport AG Frankfurt Airport Services Worldwide
GENERAL CONTRACTOR: Dechant Hoch- und Ingenieurbau Gmbh, Weismain
SCOPE: Supply, Technical support
PRODUCTS: CONTEC® Waterproofing membranes

Power Plant Opole, Poland

YEAR OF EXECUTION: 2014 - 2019
CLIENT/OWNER: PGE Górnictwo i Energetyka Konwencjonalna SA
GENERAL CONTRACTOR: Polimex-Mostostal
SCOPE: Supply, technical support
PRODUCTS: CONTEC® contaflexactiv, Voltex

Power Plant Jaworzno, Poland

YEAR OF EXECUTION: 2015 - 2019
CLIENT/OWNER: TAURON
GENERAL CONTRACTOR: Rafako, Mostostal
SCOPE: Supply, technical support
PRODUCTS: Voltex, Waterstop

Municipal stadium in Wrocław, Poland

YEAR OF EXECUTION: 2009 - 2011
CLIENT/OWNER: Stadion Wrocław company, Wrocław City
GENERAL CONTRACTOR: Mostostal Warszawa, Max Boegl
SCOPE: Supply, technical support
PRODUCTS: contaflexactiv

Golden Taraces, Poland

YEAR OF EXECUTION: 2002 - 2007
CLIENT/OWNER: Złote Tarasy Sp. z o.o.
GENERAL CONTRACTOR: Skanska
SCOPE: Supply, technical support
PRODUCTS: Injection Hoses CONTEC® TRIOject

Sea Towers Gdynia, Polska

YEAR OF EXECUTION: 2006 - 2009
CLIENT/OWNER: Invest Komfort SA
GENERAL CONTRACTOR: Invest Komfort SA
SCOPE: Supply, technical support
PRODUCTS: contaflexactiv AC

Office complex Green Day, Poland

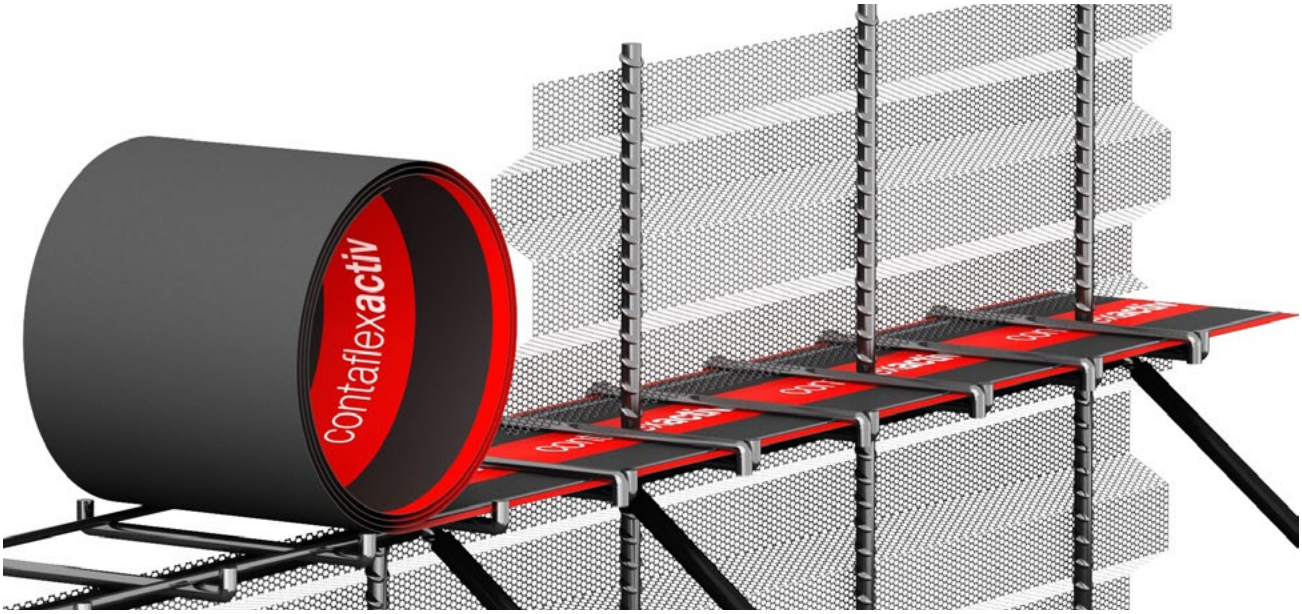
YEAR OF EXECUTION: 2012 - 2014
CLIENT/OWNER: Skanska Property Poland
GENERAL CONTRACTOR: Skanska
SCOPE: Supply, technical support
PRODUCTS: contaflexactiv, Voltex, Swelltite

The suite hotel complex Ahlbeck - Usedom, Germany

YEAR OF EXECUTION: 2019 - 2021
CLIENT/OWNER: Vela Hotels AG
GENERAL CONTRACTOR: VENTIS Holding AG
SCOPE: Supply, technical support
PRODUCTS: contaflexaktiv, Waterstop RX 101, Preprufe 300R & 800A

contaflexactiv ACR, AC, ACF

contaflexactiv metal waterstop with active bentonite coating, which are used to ensure full watertightness of construction joint in reinforced concrete structures.
Bentonite tape covered with self-soluble organic foil, which protects bentonite from early swelling.



Variants

- Metal waterstop in roll
- **AC** - metal waterstop without foot
- **ACF** - metal waterstop with foot
- **CFS** - butt joint profile for precast walls
- **CFE** - angle joint profile for precast walls

The Benefits

- Metal waterstop with active bentonite coating
- Working interval tightness up to 0.5 MPa with constant pressure and also with variable pressure
- Active bentonite has been tested for continuous tightness of the working break even after a drying period
- Active bentonite coating is protected by a biodegradable film against premature swelling
- Fast installation
- Low transport costs
- Easy connecting consecutive elements
- Elimination of complicated junctions

Technical Data

- Sealing material: active bentonite
- Thickness active bentonite coating: 2.0 mm
- Material: galvanised metal sheet
- Thickness metal waterstop: standard 0.7 mm
- Unit height: 80; 100; 125; 165; 200; 250 mm
- Unit length: straight unit 2.25 m, roll 9 m
- Packaging: box packed on pallets, shrink wrapped

Installation

The **contaflexactiv** metal waterstop with activ bentonite is placed on top of the top reinforced rebars at the location of the planned construction joint. Depending on selected variant, the product is installed:

- **ACR / AC** – is stabilised with clamps KA8/18/3 or KA 8/25/3, the overlap between the metal waterstop is 10 cm and is secured with clamp KA 18/3.
- **ACF** – the metal waterstop is placed on the upper reinforcement, there are special plates in the footing which are bent against the reinforced bars (additionally it can be tied with wire through the holes in the footing), the overlap between metal waterstops is 10 cm and is secured with clamps KA 18/3.
- Connection to the PVC tapes is carried out with the **contaflexactiv** ACB.

contaflexactiv MSA

contaflexactiv MSA metal waterstop with double side active bentonite coating, which are used to ensure full watertightness of control crack in reinforced concrete structures.
CONTEC® contaflexactiv MSA seals construction joints between reinforced concrete elements.

Variants

- **MSA** – metal waterstop crack inducer with active bentonite strip
- **MSA-FT** – metal waterstop crack inducer with active bentonite strip with mesh strip to connecting with precast walls

Technical Data

- Sealing material: active bentonite
- Thickness active bentonite coating: 2.00 mm
- Material: galvanised metal sheet
- Thickness metal waterstop: standard 1.2 mm
- Unit width: 80; 100; 125; 150; 175, 200; 250 mm (others width available on request to max. 650 mm)
- Unit length: straight unit 1.50 and 1.25 meter (others length available on request)
- Packaging: box packed on pallets, shrink wrapped
- Storage: Product should be kept in rooms that are protected from moisture and precipitation.
- Do not store in the sun. Product should be stored under the roof.

The Benefits

- Metal waterstop crack inducer with active bentonite coating
- Control crack tightness up to 0.5 MPa with constant pressure and also with variable pressure
- Active bentonite has been tested for continuous tightness of the working break even after a drying period
- Active bentonite coating is protected by a biodegradable film against premature swelling
- Fast installation
- Low transport costs

Installation

The **CONTEC® contaflexactiv** MSA profiled sealing sheet with an active bentonite layer is placed at the location of the designed crack between the reinforcement grids in the reinforced concrete structure. Depending on the selected variant, the product is installed:

- **MSA** – the profiled sheet at the point of connection with the **CONTEC® contaflexactiv AC, ACR, ACF** sealing sheet should be cut to a height appropriate to the height of the sealing sheet that extends above the concrete. **CONTEC® contaflexactiv MSA** contaflexactiv sheeting should be stabilized to the reinforcement with tie wire or "S" hooks from rebar.
- **MSA-FT**– the profiled sheet at the point of connection with the **CONTEC® contaflexactiv AC, ACR, ACF** sealing sheet should be cut to a height appropriate to the height of the sealing sheet that extends above the concrete. The **CONTEC® contaflexactiv MSA-FT** sheeting should be stabilized by mechanically nailing to the concrete substrate strips of mesh.

contaflex

contaflex metal waterstop with bituminous-polymer coating, which are used to ensure full watertightness of construction joint in reinforced concrete structures. Elastic bituminous material which guarantees good adhesion to concrete.

Variants

- **BR** - Metal waterstop without foot and one side bituminous coating
- **BR** - Metal waterstop in roll and one side bituminous coating
- **BS** - Metal waterstop with foot and one side bituminous coating
- **BR+** - Metal waterstop without foot and double side bituminous coating
- **BR+** - Metal waterstop in roll and double side bituminous coating
- **BS+** - Metal waterstop with foot and double side bituminous coating

The Benefits

- Metal waterstop with bituminous coating
- Working interval tightness up to 0.5 MPa with constant pressure and also with variable pressure
- Bituminous coating is protected by a film against contamination
- Fast installation
- Low transport costs

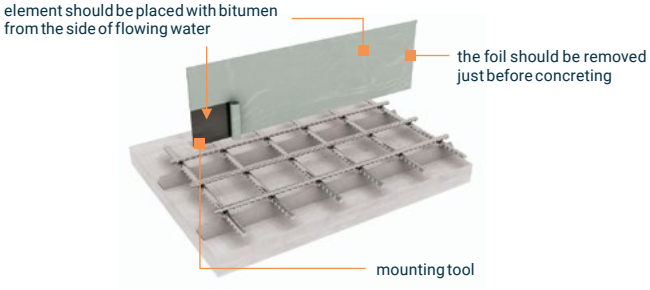
Technical Data

- Sealing material: bituminous
- Thickness bituminous coating: 0.85mm ± 15%
- Material: galvanised metal sheet
- Thickness metal waterstop: 0.7 mm
- Unit height: 80; 100; 125; 150; 165; 200; 250 mm
- Unit length: straight unit 2.25 m, roll 20 m and 10 m

Installation

STEP 1

Placing **contaflex** BS/BS+ element on the upper reinforcement of the reinforced concrete slab.



INSTALLATION OF contaflex BS/BS+

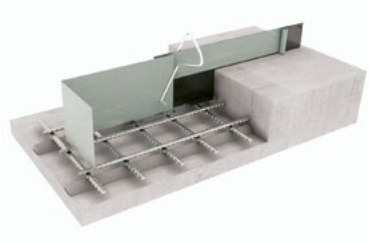
Installation of **contaflex** BS/BS+ with bendable metal sheets.

CONNECTING BY USE OF KS SCREW

Connection to the PVC tapes is carried out with the **contaflex** CFB.

STEP 2

Connecting consecutive sections with overlap using KA 18/3 clips. Making the corner or junctions during the fitting by cutting mounting foot and bending the element. Concreting.

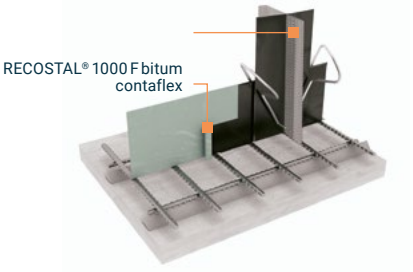


INSTALLATION OF contaflex BR/BR+

Contaflex BR/BR+ should be stabilized with KA 8/18/3 or KA 8/25/3 clamps and additionally fixed to reinforcement mesh using tie wire.

CONNECTING BY USE OF KA CLIPS

Connecting **contaflex** and **RECOSTAL® 1000 F bitum** sheets with clips.



contecSEAL 150

contecSEAL 150 is a metal waterstop made of galvanized sheet steel with a special elastic coating on both sides.
contecSEAL 150 is intended for the use as a permanent internal seal against pressurised water for construction and control joints in walls and floors and base slabs in impermeable to water concrete constructions ("White tanking") in building constructions and civil engineering without additional concrete upturn.

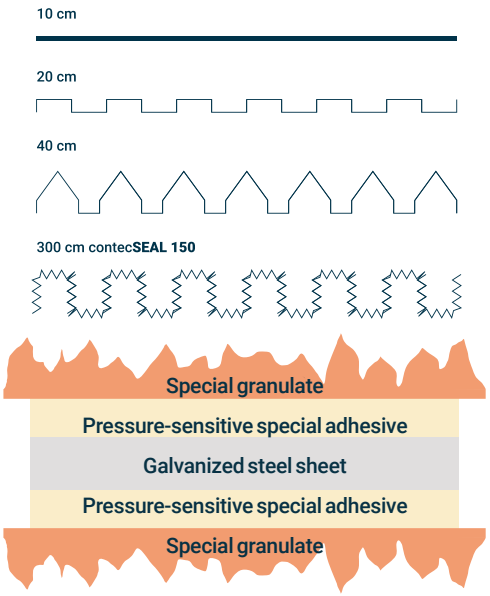
contecSEAL 150 is new generation metal waterstop. The product is mainly installed in the middle of the construction or control joint (base slab to wall, wall to wall, base slab to base slab, wall to floor slab) in the construction part to be waterproofed in in-situ concrete and precast construction. Suitable for horizontal and vertical applications.

Many variations of **contecSEAL 150** combined with **RECOSTAL® shuttering units** are possible.

The Benefits:

- Extremely strong adhesive bond to concrete
- Increased leak path
- Fresh concrete and labyrinth seals
- Elastic, non-rigid mineral coating
- Safe application due to a special doublesided elastic coating
- Pressure sensitive adhesive bond
- Non-stick surface
- Fast, effective installation (no protective film required, no additional concrete upstand in base slab to wall joint required)
- Embedment depth in concrete at least 3 cm
- Water pressure resistance up to 5 bar joint expansion of up to 0.5 mm and embedment depth 3 cm
- Tested for joint expansion of up to 1.0 mm at 2 bar water pressure
- Suitable for the use in changing water levels
- General building authority (abP) test certificate

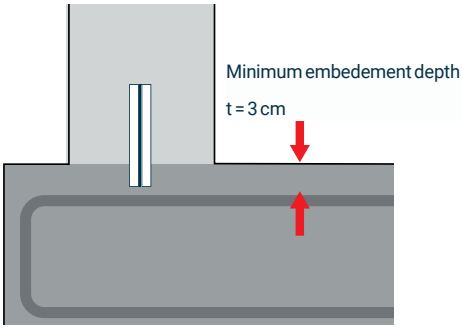
Increased leak path for the following surfaces

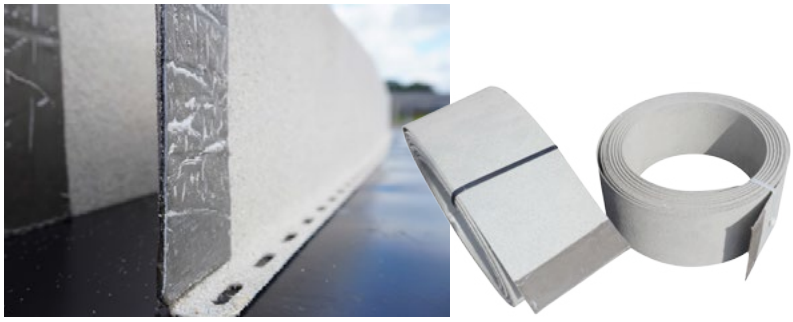


1 m² of contecSEAL 150 correspond to more than 1000 m² of smooth surface.

Installation

contecSEAL 150 metal waterstops are mainly installed in the middle of the construction or control joint (base slab to wall, wall to wall, base slab to base slab, wall to floor slab) in the construction part to be waterproofed. **contecSEAL 150** metal waterstop lap joints are installed with a 5 cm overlap between the individual **contecSEAL 150** metal waterstops. All joints between the metal waterstops are to be fixed with the separate formbraces type K23 or Fixing Clips type K23. In base slab to wall construction joint applications, **contecSEAL 150** metal waterstops are fixed to the top layer of the base slab reinforcement using the corresponding formbrace type K23 (min. 1 formbrace / m). The fixing must ensure that the installation position of the **contecSEAL 150** metal waterstops does not change during concreting. The minimum embedment depth in the floor slab or in the first pour area is t = 3 cm. The maximum embedment depth in the first pour area must not exceed half of the sheet height. Corners and diversions can be created on site by simply bending the **contecSEAL 150** metal waterstops by hand. When using **contecSEAL 150** metal waterstops in wall to wall or base slab to base slab construction and control joints, it is recommended to use **RECOSTAL® shuttering units** type AFB (to be ordered separately) in order to secure the **contecSEAL 150** metal waterstops firmly in place. **contecSEAL 150** with a missing or damaged coating must not be used.





Variants

contecSEAL 150 - metal waterstop without foot

Lenght: 2.00 m

Height: 150 mm

contecSEAL 150 F - is available with footing and holes for attachment to the reinforcement with tying wire.

Length: 2.00 m

Height: 150 mm

contecSEAL 150 R - is in roll in various lengths.

Lengths: 10 m, 15 m, 20 m

Height: 150 mm

Technical Data

- Basic metal waterstop: galvanized sheet steel
- Unit length: 2000 mm
- Unit height: 150 mm
- Sheet metal thickness: approx. 0.65 mm
- Total thickness: approx. 1.1 mm
- Special coating: double-sided special adhesive + granulated
- quartz with silicon dioxide components
- Special contact adhesive: APEO-free contact coating
- Colour: beige with white quartz inclusions
- Surface: non-adhesive

Packaging unit

- Sturdy wooden box with 50 contecSEAL 150 metal waterstops (l = 2 m)
- 50 pc. Fixing Clips type 100/95
- 4 pc. contaflexactiv VAS 50/150 active

conSTIC 150

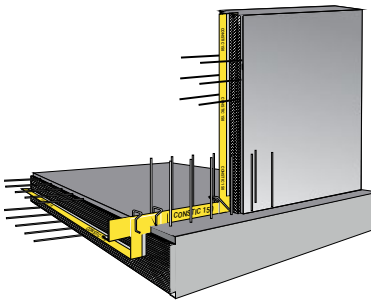
conSTIC 150 is high-performance, adhesive metal waterstop. conSTIC 150 is a metal waterstop made of galvanized sheet steel with a special elastic adhesive coating on both sides. The special elastic coating consists of a pressure-sensitive adhesive that is activated by concrete pressure and heating after removing the protective foil film, creating a permanently very strong adhesive bond between the metal and the concrete.

conSTIC 150 is intended for the use as a permanent internal seal against pressurised water for construction and control joints in walls, floors and base slabs in impermeable to water concrete constructions ("White tanking") without additional concrete upturn.

Many variations of **conSTIC 150** combined with **RECOSTAL® shuttering units** are possible.

The Benefits:

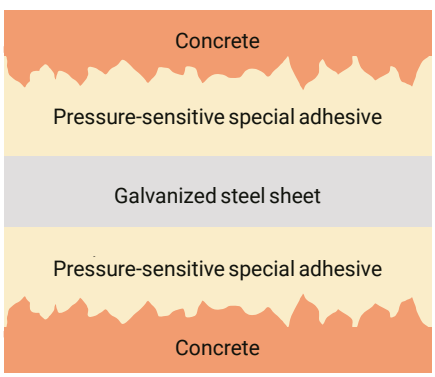
- Cost-effective, proven technology offering great value
- Flexible, multi-purpose product suitable for sealing in a variety of situations (horizontally and vertically useable)
- Pressure sensitive adhesive bond technology
- Extremely strong adhesive bond to concrete
- Elastic, non rigid coating
- High safety/reliability from adhesive overlap
- Straightforward on-site application — simply remove foil film to activate adhesive
- No additional kicker in base slab to wall joint required
- Embedment depth in concrete at least 3 cm
- Tested for joint expansion of up to 1.0 mm at 5 bar water pressure with 3 cm embedded depth
- Suitable for the use in changing water levels
- General building authority test certificate (abP)



Application

conSTIC 150 provides long-lasting internal waterproofing of construction and control joints on structural and civil engineering projects. It is suitable for joints of up to 1mm crack width, and for protecting against penetration by both pressurized and unpressurized water. It can also be used in situations where water levels may change. **conSTIC 150** is suitable for white tanking construction and installation in walls, floors and base slabs, and between different types of concrete section (base slab to wall, wall to wall, base slab to base slab, wall to floor). Typical applications are in-situ and precast concrete constructions. Many other variations of **conSTIC 150** in combination with **RECOSTAL® shuttering units** are possible.

Composition metal waterstop

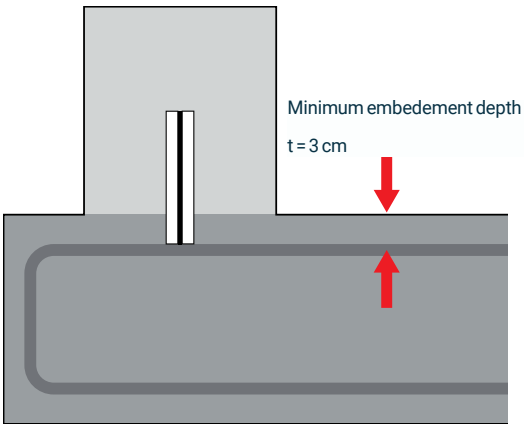


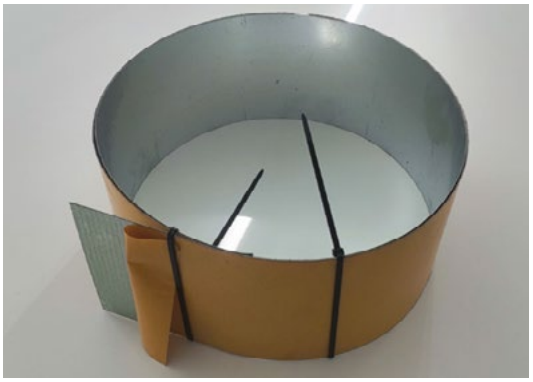
Technology

conSTIC 150 has been tested with up to 50 m (5.0 bar) hydrostatic head and, in accordance with the abP (German approval regulations), is approved for up to 20 m (2.0 bar) hydrostatic head in case of joint expansions of up to 1.0 mm with an embedment depth of the metal waterstop of only 3 cm. The use of **conSTIC 150** metal waterstops is also approved for control joints in in-situ and precast concrete constructions. **conSTIC 150** is also suitable and has been tested for the use in changing water levels. The self-adhesive overlaps ensure a high level of functional reliability.

Installation

conSTIC 150 metal waterstops are normally installed into the middle of the section of construction to be waterproofed (base slab to wall, wall to wall, base slab to base slab, wall to floor) with 5 cm wide lap joints between the individual **conSTIC 150** metal waterstops Fold back the protective film at the respective contact points (overlaps) of the individual waterstops and press the waterstops firmly together. Fix all lap joints with related Fixing Clips for example KS23, Fixing Clips XL or Formbraces MBA23 (available separately). If using **conSTIC 150** metal waterstops are used for base slab to wall construction joint applications, they should be fixed on top of the top layer of the base slab reinforcement using Formbraces MBA23 or, alternatively, Formbraces 3/70 (at a minimum of one formbrace per metre). Fixings have to be rigid enough to prevent the **conSTIC 150** metal waterstops from moving during concrete pour. The minimum anchoring depth into the base slab or the first pour area is t = 3 cm. The maximum anchoring depth in the first pour area is not to exceed half of the metal waterstop height. The protective film, which is split in the middle on both sides, must be completely removed shortly before concreting the next section. Corners and diversions are installed on site by simply bending the **conSTIC 150** metal waterstops by hand. **conSTIC 150** metal waterstops with missing or damaged coating must not be used.





Technical Data

- Galvanized sheet steel waterstop
- Unit length: 2000 m
- Unit height: 150 mm
- Total thickness including coating approx. 0.9 mm
- special elastic coating of pressure-sensitive elastic adhesive on both sides
- Protective film on both sides
- Color coating: transparent

Packaging unit

- Robust wooden crate containing 50x **conSTIC 150** metal waterstops
- 50 pc. Fixing Clips type 100/95
- Formbrace MBA23 or Formbrace 3/70 + Fixing Clip KS23 or Fixing Clip XL available for separate order
- Store **conSTIC 150** metal waterstops in their original packaging in a dry place. Protect from frost.
- Shelf-life approx. 24 month

Variants

- **conSTIC 150** - metal waterstop without foot
  Length: 2.00 m
  Height: 150 mm
- **conSTIC 150** F is available with footing and holes for attachment to the reinforcement with tying wire.
  Length: 2.00 m
  Height: 150 mm
- **conSTIC 150** R - is in roll in various lengths.
  Lengths: 10 m, 15 m, 20 m
  Height: 150 mm

Waterstop RX®

Waterstop RX® - bentonite tapes used for sealing horizontal and vertical construction joints in structures. Under influence of water active bentonite swells and next as a gel fills all empty spaces in concrete.

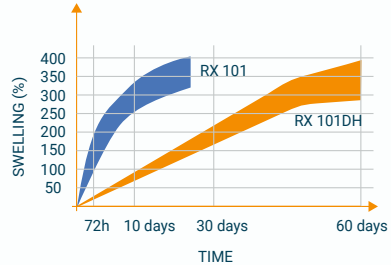
Types

- RX 101 - simple tape 20 x 25 mm.
- RX 103 - simple tape 10 x 15 mm.
- RX 101 DH - tape with extended swelling time
- XP - tape for use in places of occurence of fresh and highly saline groundwater

Type	Dimension [mm]	Quantity [m/pall.]	Quantity [m/pall.]
RX 103	10 x 15	6.0	864
RX 101	20 x 25	5.0	720
XP	10 x 15	6.0	864
Revofix - mesh	1 m	9 - 30	
Cetseal - glue	-	290 ml	-

Further Swelling tapes

- BT 2025 S
- BT 2025 R
- Contaseal CS 200
- Contaseal CS 201
- Contaseal CS 202
- Contaseal CS 204
- Contaseal CS 302
- Contaseal CS 304
- Contaseal CS 305



SUPERject

SUPERject is a flat hose system with the ability to adapt to surfaces. The foam rubber pad on the buttom perfectly adapts to rough surfaces. This makes the system highly effective. SUPERject is fixed continuously with fixing mesh thus securing full-surface contact with joint. The mesh additionally protects the hose against mecchanical demage.

Articel	Item No.	Packaging
SUPERject Injection Hose coiled roll	21121200	1 box = 100 m
SUPERject-Hose Set L = 10.00 m assembled with nailing packer	21121210	1 box = 5 hoses = 50 m
Injection and Vent Endes textile reinforced hose L = 0.40 m	21194200	According to requirement
CONTEC®-Nailing Packer to be nailed to the formwork	21192310	1 box = 20 pcs
CONTEC®-Variopacker to be installed into the reinforcement	21192210	1 box = 20 pcs
SUPERject Fixing Mesh individuel length L = 1.00 m	21191220	1 box = 50 pcs = 50 m
Coupling runnning metres for joining hose ends	21194930	According to requirement
Fixing Plugs ø 5 mm, L = 36 mm	21193110	1 box = 100 pcs
Capping Nails for nail gun L=37 mm	21193220	1 box = 100 pcs

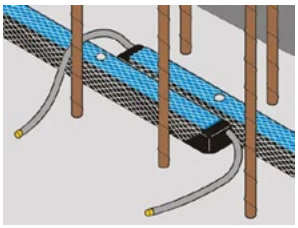
The Benefits:

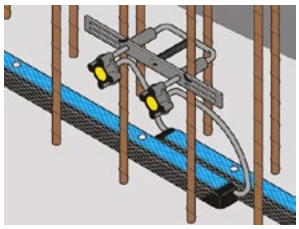
- Adapts to surfaces
- Full-surface contact with the joint
- Continuous fixing with mesh
- Fast installation

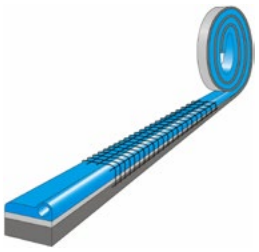
Combiject® 2000

Combiject® 2000 is a waterproofing system consisting of a combination of a bentonite expanding seal and an injection hose.

The primary waterproofing agent is the bentonite expanding seal. The integrated injection channel serves as additional security. Thus, this system meets the highest security demands. **Combiject® 2000** is continuously fixed with mesh, ensuring proper contact with the joint. The fixing mesh also protects the hose from being damaged. Hose ends are simply overlapped and placed directly against one another. The injection ends either lead out of the construction or are connected to nailing or vario packers. Injection is carried out if or when necessary.







The Benefits:

- Full-surface contact with the joint
- Continuous fixing with mesh
- Double security

TRIOject

TRIOject® injection hoses consist of 3 injection channels which can be injected separately at any time. Slotted perforations at the top and bottom of the channels open at 1 bar and allow the injection material to emerge into the joint.

CONTEC® TRIOject Product list

TYPE	Packaging
Triojject® Injection Hose, 100 m rolls	1 box = 1 roll = 100 m
Triojject® Fixing Mesh	1 box = 50 pieces = 50 m
TRIO - Nailing Packer	1 box = 20 pieces
TRIO - Vario Packer	1 box = 20 pieces
Steel Nails, L = 50 mm	1 box = 200 pieces
Capping Nails, for nail gun, L = 37 mm	1 box = 100 pieces
Plastics Fixing Clips, drill hole ø 5 mm for pressing into concrete	1 Karton = 250 Stück
Superglue	1 Flasche à 10 g

Accessories:

- Triopress valve
- Revofix mesh
- Blue and red connectors
- Superglue

Seals for prefabricated walls

CFS/CFE joint profile

Internal waterproofing of precast walls.

The CFS/CFE joint sealing profiles are specially designed for the application in precast walls with a core thickness of ≥12 cm and meet the high demands for effective waterproofing against hydrostatic pressure. The system consists of galvanized folded profiles coated with bentonite, with excellent active sealing effect and ease of handling during installation and in providing the butt joints. The water that penetrates along the profile contacts the **contaflexactiv** coating and activates the swellable bentonite to form a highly impervious barrier. The coating of the metal waterstops consists of highly swelling bentonite.

The Benefits:

- Activ bentonite sealing system
- Safe active overlaps
- Easy and fast installation
- Water pressure resistance up to 5 bar
- Tested for joint expansion of up to 0.5 mm
- General building authority test certificate (abP)

Swelltite 3000 System

External waterproofing of precast walls.

Swelltite 3000 is a system for sealing horizontal and vertical construction and butt joints in waterproof concrete structures against hydrostatic pressure, as encountered in precast and double-wall constructions. **Swelltite 3000** is attached to the outer side of double walls, where it develops its sealing effect. The bentonite, used as sealing material, here provides the system with a permanently active swelling joint seal. The ready-to-install bentonite film strips (delivered as roll material) are especially flexible to use. Other system components are Bentoseal C60 sealing compound and profiled cover sections made of stainless steel or PVC with stainless steel knock-in anchors. The system moves the sealing level to the exterior of the wall. All joint areas are covered over a width of 24 cm with highly swelling, bentonite strips which effectively prevent water from penetrating. Installation can be carried out in any kind of weather. In cases of high security standard, we recommend the installation of **contaflexactiv** metal waterstop

The Benefits:

- Sealing level exterior to the wall
  (no water penetration into construction)
- Activ bentonite sealing system
- Easy and fast installation
- Water pressure resistance up to 2 bar
- Tested for joint expansion of up to 0.5 mm
- General building authority test certificate (abP)

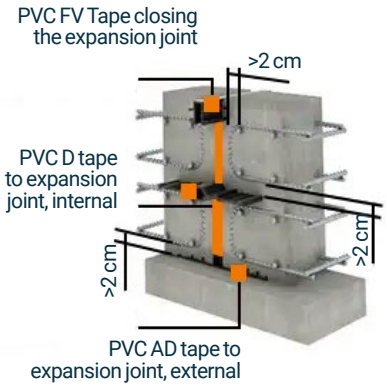
PVC Tapes

PVC Tapes - used for sealing horizontal and vertical construction joints and expansion joints in concrete structures and reinforced structures.

Type	Tape type	Width of tape [mm]	Width of expansion joint [mm]	Quantity [m/rol]
A 150	internal	150	-	25
A 190	internal	190	-	25
A 240	internal	240	-	25
A 320	internal	320	-	25
D 190	internal	190	10	25
D 240	internal	240	20	25
D 320	internal	320	20	25
AA 190	external	190	-	25
AA 240	external	240	-	25
AA 320	external	320	-	25
AD 190	external	190	20	25
AD 240	external	240	20	25
AD 320	external	320	20	25
M88	internal	127	-	3-5
M66	internal	105	-	3-5

Types:

- **A Type** - sealing, used in construction joints
- **D Type** - sealing, with duct, used in expansion joints



Angle PVC Tapes

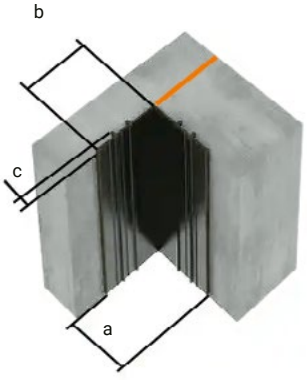
Angle PVC Tapes - profile tapes used for sealing construction joints and expansion joints.

Type	Width b [mm]	Height a [mm]	Height c [mm]	Quantity of anchor-profiles	Quantity [m/roll.]
AA 240 Ecke A	125	125	20	4	25
AA 240 Ecke W	125	125	20	4	25
AA 320 Ecke A	165	165	20	6	25
AA 320 Ecke W	165	165	20	6	25
AD 240 Ecke A	125	125	20	4	25
AD 240 Ecke W	125	125	20	4	25
AD 320 Ecke A	165	165	20	6	25
AD 320 Ecke W	165	165	20	6	25
FV 50/30	50	30	20	2	25
FV 70/30/40	70	30	40	2	25
FV 100/30	95	30	20	4	25
FV 140/30	140	30	20	6	25
FV 140/40	140	30	35	4	25

Important:
for detailed solutions ask the Technical Department.

Types:

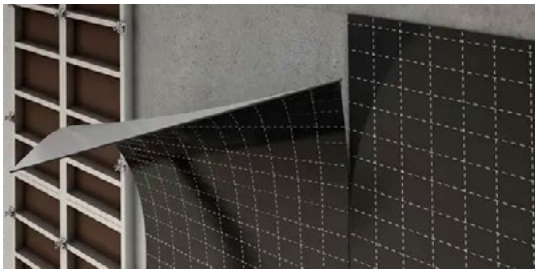
- **Ecke** - angle tapes for sealing and expansion joints
- **FV** - closing tapes
- **Version I** - simple PCV tapes
- **Version II** - special (bitumen and oil resistant)



AA ECKE A type
angle tape for sealing AA Ecke A type

Perbit 2000

Perbit 2000 is bitumen-polymer membrane with self-amalgamating overlap tape. Cold -applied for sealing of reinforced concrete structures according to standard: DIN-EN 14967(PN-EN), DIN V 20000-202, DIN-EN13969 (PN-EN).



Used for insulations:

- Underground parts of buildings
- Foundations
- Tunnels
- Wet rooms
- Terraces and balconies
- Roofs
- Roads

The Benefits:

- Water tightness to 0.8 MPa
- Application at temperatures below 0 °C
- Radon and methane barrier
- High resistance to tears, punctures and chemicals
- Self-amalgamating tape 25 mm in overlap place
- Excellent adhesion to the surface
- Tear resistant

Installation

General recommendations: During the installation observe the compulsory security standards - wear protective gloves and work clothes with long sleeves. Product should be stored in rooms protected from moisture and precipitation.Product must be placed with a bentonite layer from the side of the structure.

Technical Data

- Thicknes : 1.5 mm
- Dimension unit: 1.0 x 15 m
- Maximum elongation: 370 % (along), 320 % (crosswise)
- Maximum tensile strength:
  240 + 40 N (along), 50 mm (crosswise)

STEP 1

Preparation for the insulation of concrete foundation wall.

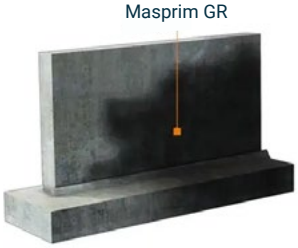
filling the rough surface

facet made with bituminous putty min. 3 cm

STEP 2

Priming of wall.

Masprim GR



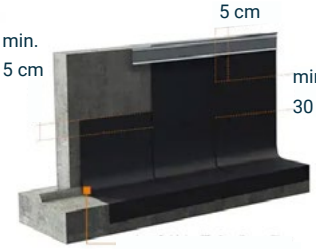
STEP 3

Perbit mats are self-adhesive and cold-placed - overlap 5 cm.

5 cm

min. 5 cm

min. 30 cm



can be applied during weather conditions due to moisture-tolerant priming system

STEP 4

Setting styrofoam.

Setting styrofoam.

Swelltite 3000

Swelltite - composite hydro-insulating membrane consists of a bentonite layer composited between layer of geomembrane and transparent layer of self-soluble foil.

Technical Data

Characteristics	
Weight	~ 3080 g/m^2
Thickness	2 mm
Tensile strength in both directions	≥ 9 kN/m
Relative elongation at max. load in both directions	160 ± 10%
Resistance to static penetration (CBR method)	≥ 1.6 kN
Displacement during penetration	78 ± 10%
Resistance to dynamic penetration, hole diameter	≤ 9 mm
Edometric swelling ratio	≥ 150%
Swelling time	10 ÷ 25 days
Swelling pressure	≥ 200 kPa

Type	Type of material	Dimensions	Quantity [packs]
Swelltite	bentonite	1.0 m x 10.0 m	1 roll
Masprim SKW	asphalt - rubber mass	20 kg	1 bucket

Installation

Membrane glue on Masprim SKW.

Membrane installation from bentonite side toward the structure.

General recommendations:

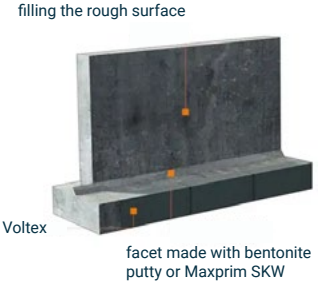
- During the installation observe the compulsory security standards
  - wear protective gloves and work clothes with long sleeves.
- Product should be stored in rooms protected from moisture and precipitation.
- Product must be fitted with the bentonite layer from the side of the structure.

Application

- Insulation of underground structure elements
- Hydro-insulations of foundations of masonry walls
- Insulation of tunnels performed in an open trench

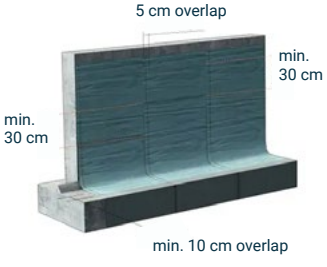
STEP 1

Preparation for the insulation of concrete foundation wall.



STEP 2

Placing of Swelltite with 5 cm of overlap.

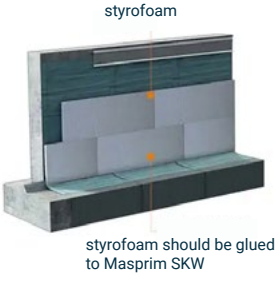


STEP 3

Installation of steel strip: LVT or LVS.

STEP 4

Setting styrofoam.

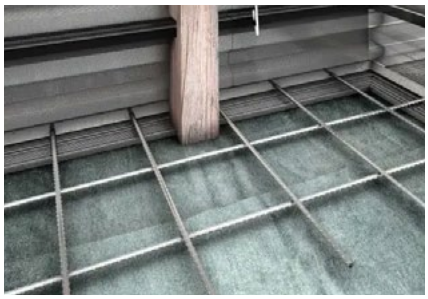


Voltex

Voltex - bentonite-mat for hydro-insulation. Bentonite pallets are placed between geotextile and polypropylene geotextile.
In contact with water bentonite is activated of bentonite putty used to flatten the surface.

Application - hydro-insulation:

- Underground parts of the building
- Foundation slabs
- Underground tunnels
- Landfills



Technical Data

Swelling material	bentonite
Permeability	≤ 1.0 x 10-11 m/s (Voltex); no leakage (Voltex DS)
Tensile strength	8.0 kN/m (Voltex); 10.0 kN/m (Voltex DS)
Resistance to penetration	≥ 1.5 kN (Voltex); ≥ 1.8 kN (Voltex DS)
Swelling rate	> 150 %

Type	Mass [g/m^2]	Width [mm]	Length [m]	Quantity [../pack]
Voltex	5100	1150	5.0	5.75 m^2
Voltex DS	5300	2500	10.0	25 m^2
LVT Strip	-	55	2.35	10 pc
LVT Strip	-	55	2.35	10 pc
Granulate	-	-	-	25 kg

Installation

General recommendations:

During the installation observe the compulsory security standards - wear protective gloves.

STEP 1

Placing adjecent bands of Voltex with overlap min. 10 cm Move the overlaps of band ends by at least 30 cm.

STEP 2

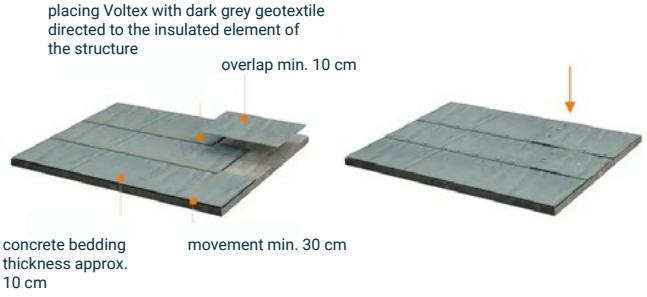
Protection of mat against displacement - using nails with washers or sewing up edges.

STEP 3

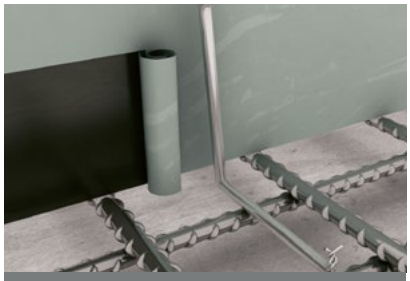
Place Voltex mat at least 30 cm beyond the edge of construction joint.

STEP 4

Concreting of construction joint.



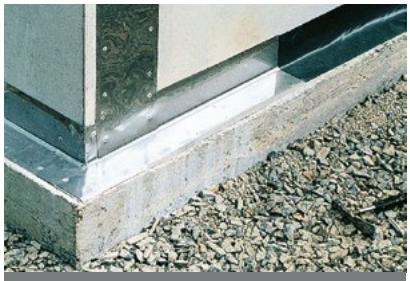
CONTEC® Sealing Technologies



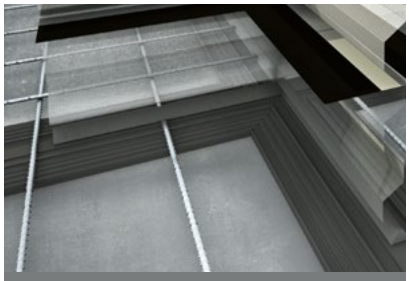
Metal waterstops

Swelling tapes

Injection hoses



Seals for prefabricated walls



PVC tapes

Waterproofing membranes

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