

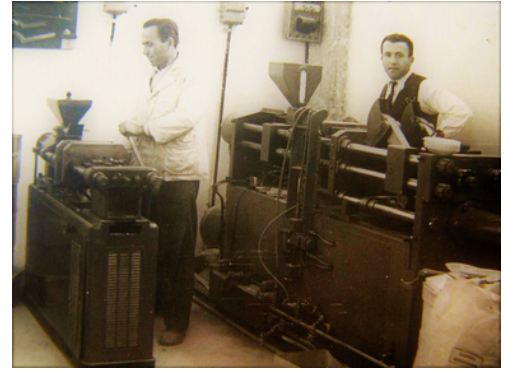


# CATALOG

## WATERPROOFING MATERIALS

# About Us

We are a family company started in 1958, by Miltiadis Tyrbas and enters the third generation in plastics industry. Started with the production of plastics general household goods consumption. Since 1988 produces specialized elements with high demands and specifications for construction works.



## Costumers

TERNA SA  
AKTOR SA  
ATTIKO METRO SA  
METLEN SA  
INTRAKAT SA  
AVAX SA  
T-MOBILE  
COSMOTE- OTE SA  
FRAPORT SA  
LAMDA DEVELOPMENT  
VIORYL SA  
LIDL HELLAS  
ESHA SA  
NOVA / WIND SA  
MOTOR OIL  
STAM SA  
VINCI  
HOCHTIEF  
VODAFONE SA

**and +3.000 more...**

## CERTIFICATES



**Verified by GS1**

Member of  Association Greece

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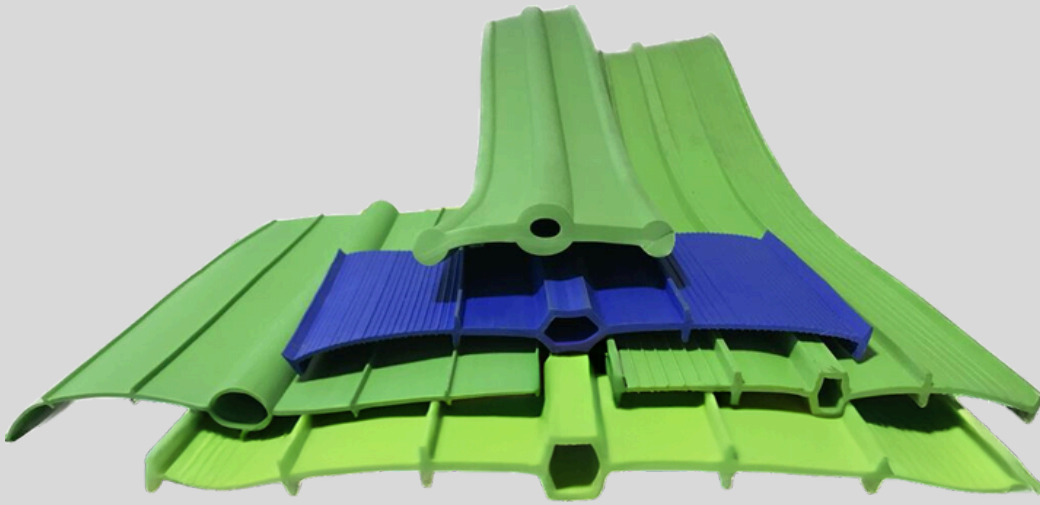
Hydrophilic Swelling waterstops

**30**

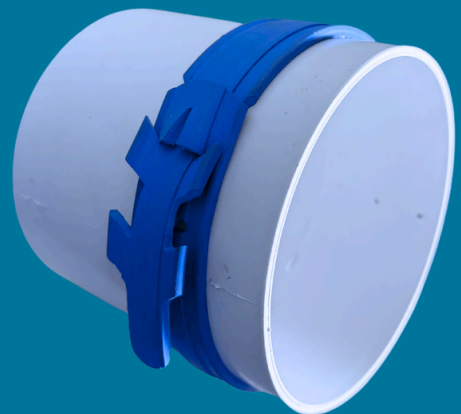
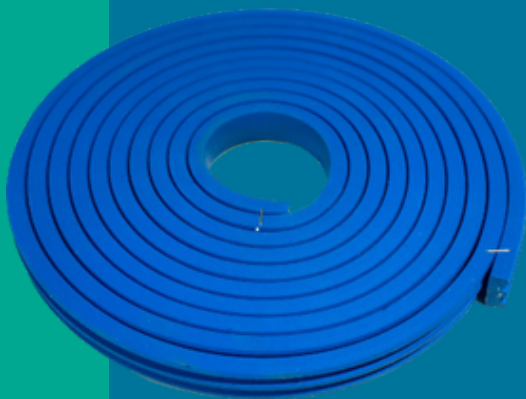
Injection Hose Systems

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Accessories For PVC Membranes



# JOINT SEALING



# WATERSTOPS

**PVC - PE - TPV-TPE-TPO WATERSTOPS ARE USED FOR SEALING CONSTRUCTION AND EXPANSION JOINTS IN CONCRETE OR ANY OTHER CONSTRUCTION.**

**WATERSTOPS ARE AVAILABLE IN VARIOUS SIZES AND TYPES, DEPENDING ON THE NEEDS OF EACH PROJECT.**

**ALL PVC WATERSTOPS ARE AVAILABLE IN BS STANDARD AND DIN STANDARD SERIES**

**WATERSTOPS ARE USED TO SEAL CONSTRUCTION AND EXPANSION JOINTS IN WATER RETENTION STRUCTURES SUCH AS TUNNELS, DAMS, CISTERNS, IRRIGATION CANALS, SWIMMING POOLS, BASEMENTS, UNDERGROUND CAR PARKS, RETAINING WALLS.**

## **Standards/Approvals**

**PVC waterstops have been tested and are in accordance to:**

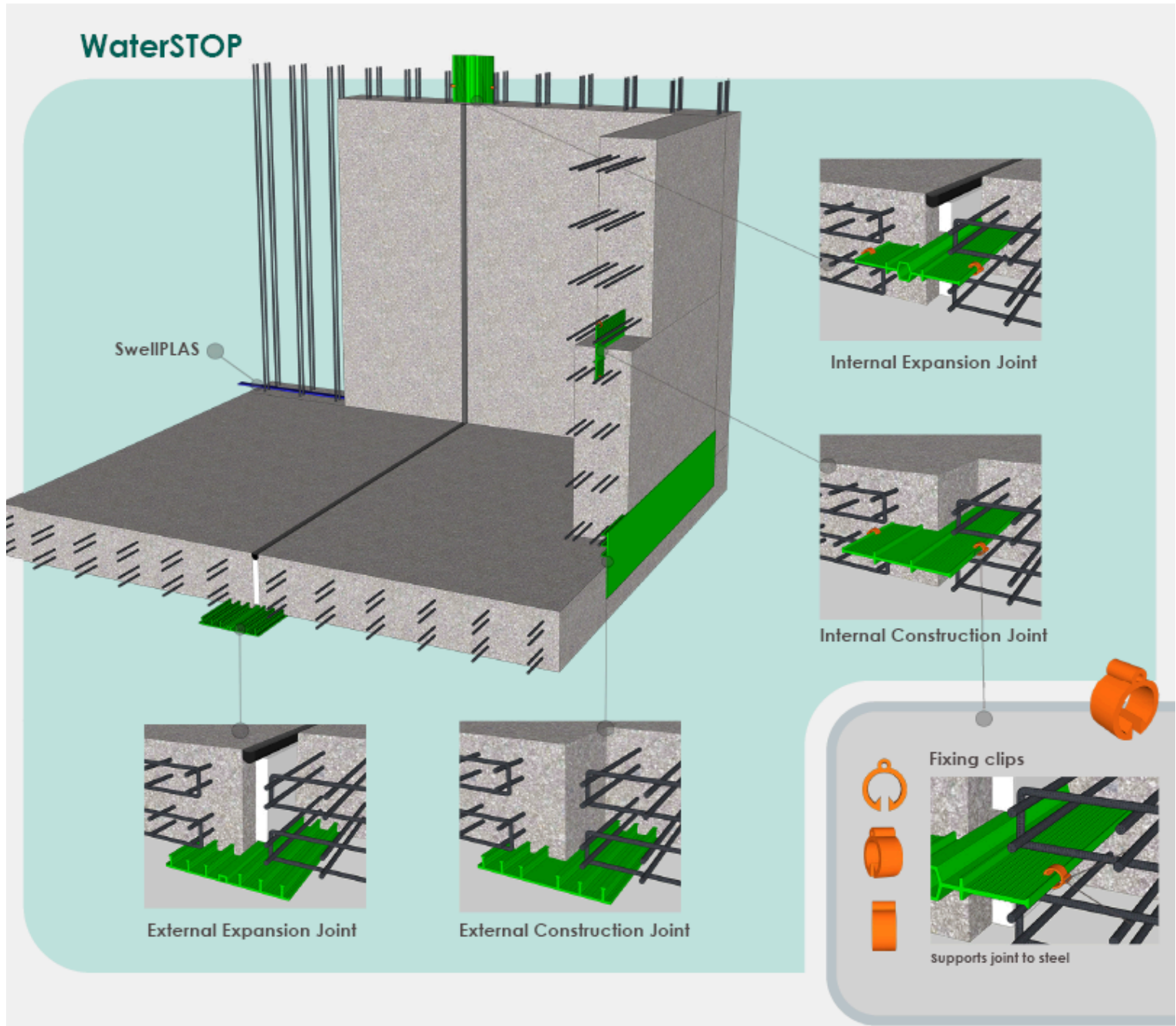
**BS. 2571**

**DIN 18541, Part 1- Part 2**

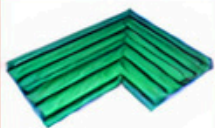


# WATERSTOPS

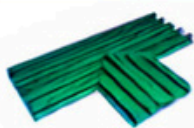
## AREAS OF APPLICATION



### Pre-fabricated factory welded joints



Flat L



Flat T



Flat X



Reverse Vertical L

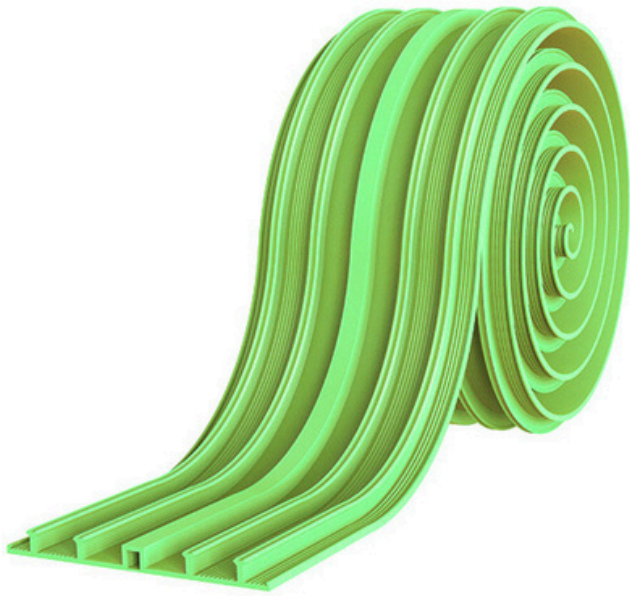
### Accessories



Joining Jig



Electric Welding Knife



# **BS STANDARD WATERSTOP SERIES**

# WATERSTOPS BS STANDARD

## BS STANDARD 2571 WATERSTOP SERIES

Waterstop is used for internal and external waterproofing of movement joints in concrete structures in accordance with British standard 2571, which are subject to continuous or occasional loads from pressure water and non-pressure water.

**Basis:** PVC (according to Factory Standard)

**Colour:** Green

**Application temperature:**  $\geq 0$  °C

**Tensile strength, in accordance with EN ISO 527:**  $\geq 11$  N / mm<sup>2</sup>

**Elongation at break in accordance with EN ISO 527:**  $\geq 300$  %

**Hardness per ShoreA in accordance with EN 527:**  $70 \pm 5$

**Tear Resistance in accordance with EN ISO 34-1:**  $\geq 12$  N / mm

**Reaction to fire:** Normal inflammability

in accordance with EN 13501:(construction class E)

### Resistance to Chemicals:

**Type**

**Dilute Acid** Very Good

**Dilute Alkalis** Very Good

**Oils and Greases** Good (variable)

**Sea water** Very Good

**Aromatic Hydrocarbons** Poor

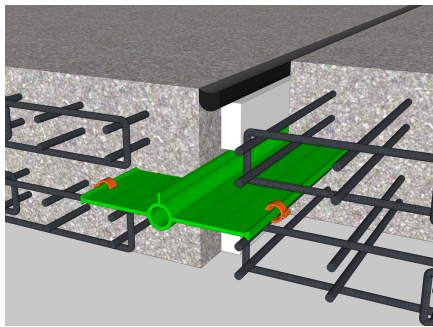
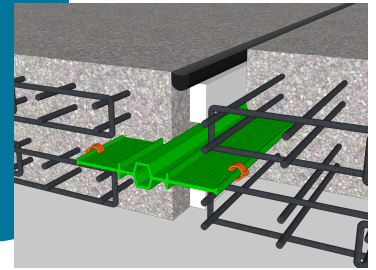
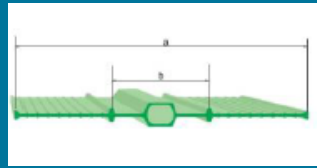
**Halogenated Hydrocarbons** Moderate (variable)

**Alcohols** Good (variable)

# WATERSTOPS BS STANDARD

## BS STANDARD WATERSTOP SERIES INTERNAL EXPANSION JOINTS

TYPE	a	b
WHD-140	140	40
WHD-200	200	70
WHD-240	240	80
WHD-300	300	100

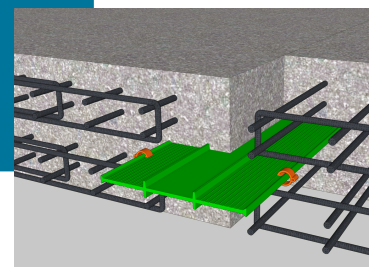
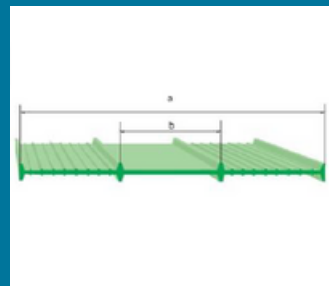


TYPE	a	b
HL D 250	250	25



## INTERNAL CONSTRUCTION JOINTS

TYPE	a	b
WHF D-140	140	40
WHF D-200	200	70
WHF D-240	240	80
WHF D-300	300	100

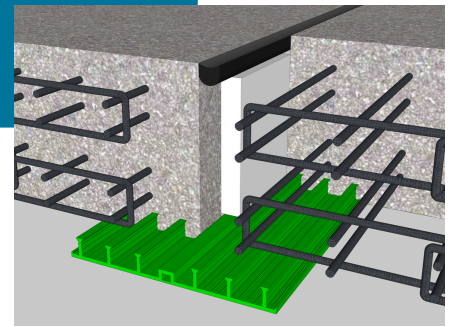
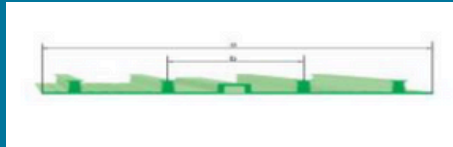


# WATERSTOPS BS STANDARD

## WATERSTOP FACTORY STANDARD SERIES EXTERNAL EXPANSION JOINT

TYPE	a	b
WRH D-200	200	80
WRH D-240	240	80
WRH D-300*	300	100

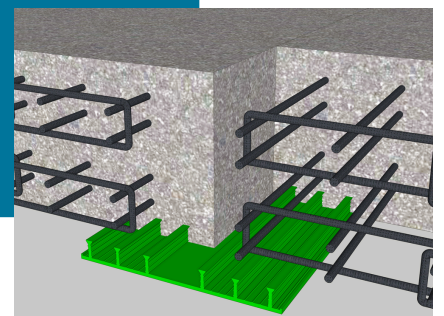
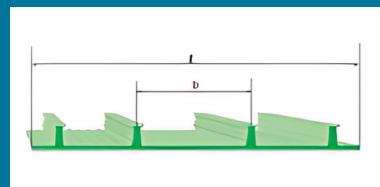
\*6 PINS



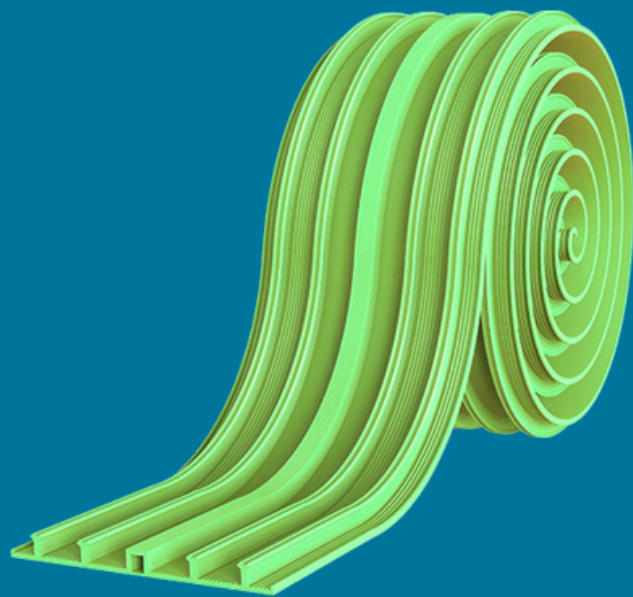
## EXTERNAL CONSTRUCTION JOINT

TYPE	a	b
WR D-200	200	70
WR D-240	240	80
WR D-250	250	80
WR D-300*	300	100
WR D-320*	320	100
WR D500*	500	

\*6 PINS



# **DIN STANDARD WATERSTOP SERIES**



# WATERSTOP SERIES

## DIN 18541 1-2 STANDARD WATERSTOP SERIES

DIN series waterstop is used for internal and external waterproofing of movement joints in concrete structures in accordance with DIN 18541 1-2 standards, which are subject to continuous or occasional loads from pressure water and non-pressure water.

Basis: PVC (according to DIN 18541-2)

Colour: Green

Application temperature:  $\geq 0$  °C

Tensile strength, in accordance with EN ISO 527:  $\geq 12$  N / mm<sup>2</sup>

Elongation at break in accordance with EN ISO 527:  $\geq 350$  %

Tear Resistane in accordance with EN ISO 34-1:  $\geq 12,7$  N / mm

Elongation at break at -20C in accordance with EN ISO 527:  $>200$  %

Hardness per ShoreA in accordance with EN 527:  $67 \pm 5$

Reaction to fire: Normal inflammability

in accordance with EN 13501:(construction class E)

### Resistance to Chemicals:

#### Type

Dilute Acid Very Good

Dilute Alkalis Very Good

Oils and Greases Good (variable)

Sea water Very Good

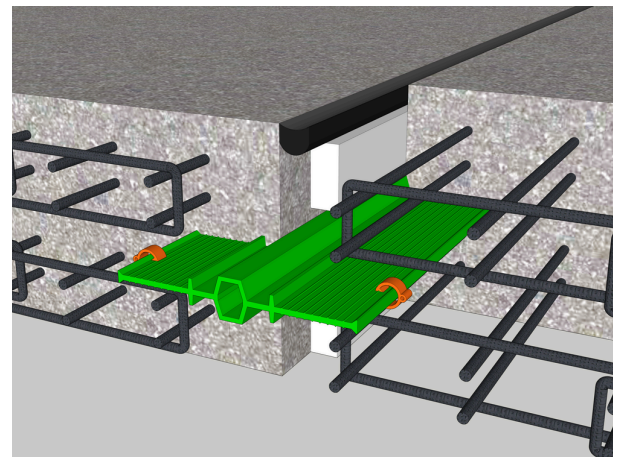
Aromatic Hydrocarbons Poor

Halogenated Hydrocarbons Moderate (variable)

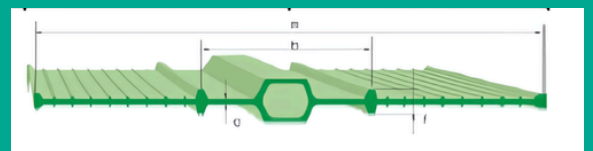
Alcohols Good (variable)

# WATERSTOP SERIES

## DIN STANDARD WATERSTOP SERIES INTERNAL EXPANSION JOINTS

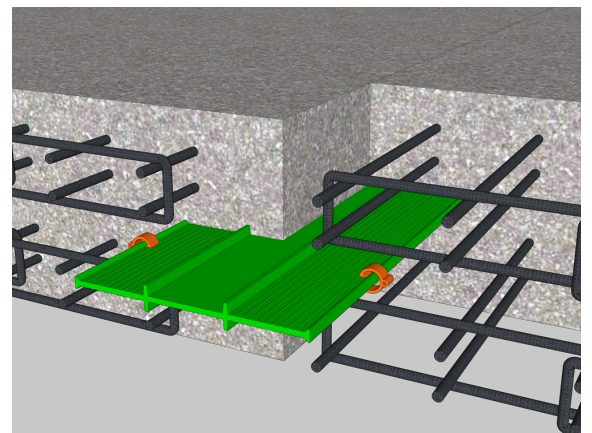


TYPE	a	b	c	F
D 190	190	70	4	15
D 240	240	80	4	15
D 320	320	100	5	15
D 400	400	150	5	18
D 500	500	150	6	18

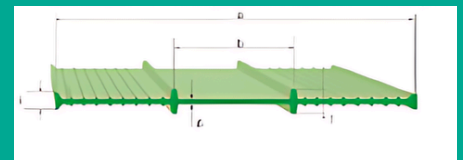


# WATERSTOP SERIES

## DIN STANDARD WATERSTOP SERIES INTERNAL CONSTRUCTION JOINTS

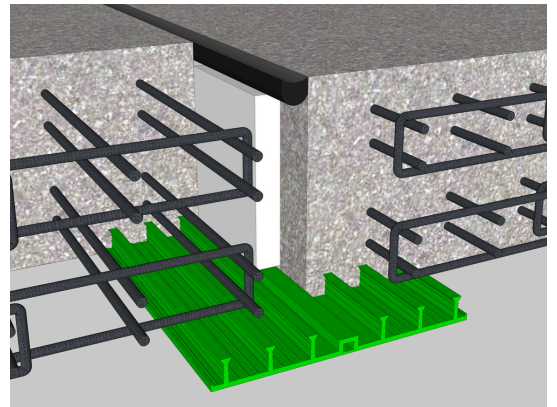


TYPE	a	b	c	F	i
A 190	190	70	3,5	15	15
A 240	240	80	4	15	15
A 320	320	100	4,5	15	15
A 400	400	150	5	18	18
A 500	500	150	6	18	18

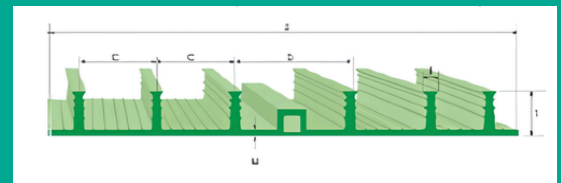


# WATERSTOP SERIES

## DIN STANDARD WATERSTOP SERIES EXTERNAL EXPANSION JOINTS WATERSTOP



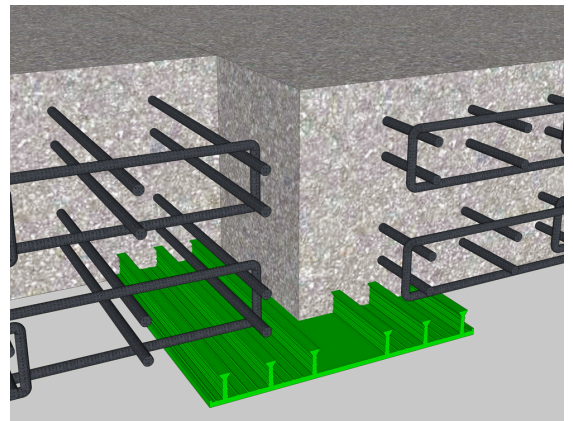
TYPE	a	b	C	F	N	i
DA 250/20*	250	90	45	25	4	11
DA 250/30*	250	90	45	30	4	11
DA 320/20**	320	100	45	25	4	11
DA 320/30**	320	100	45	30	4	11
DA 500/20**	500	230	45	25	4	11
DA 500/20***	500	230	45	25	4	11



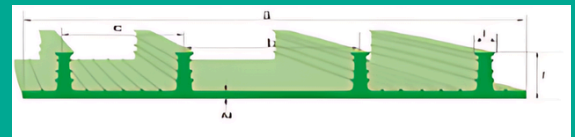
**\* 4 PINS**  
**\*\* 6 PINS**  
**\*\*\* 8 PINS**

# WATERSTOP SERIES

## DIN STANDARD WATERSTOP SERIES EXTERNAL CONSTRUCTION JOINTS WATERSTOP



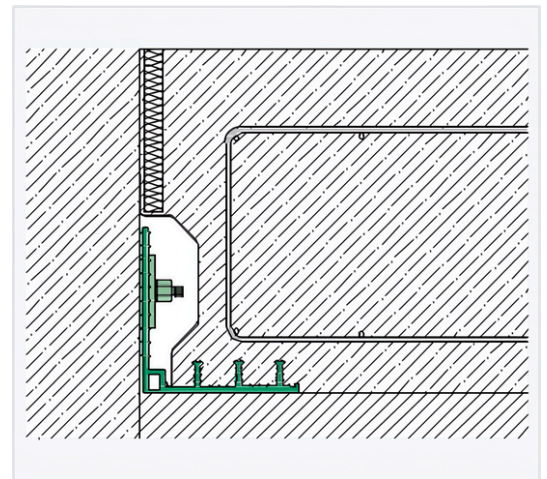
TYPE	a	b	c	F	N	i
AA 250/20*	250	90	45	25	4	11
AA 250/30*	250	90	45	30	4	11
AA 320/20**	320	100	45	25	4	11
AA 320/30**	320	100	45	30	4	11
AA 500/20**	500	225	45	25	4	11
AA 500/20***	500	225	45	25	4	11



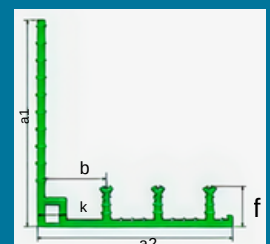
**\* 4 PINS**  
**\*\* 6 PINS**  
**\*\*\* 8 PINS**

# WATERSTOP SERIES

## DA 180/170 WATERSTOP TYPE INTERNAL FLANGED JOINT WATERSTOP

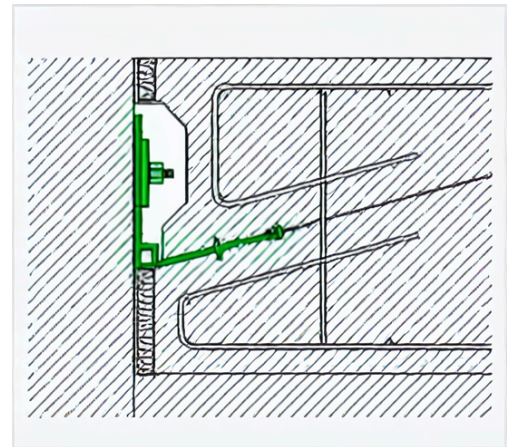


TYPE	$\alpha 1$	$\alpha 2$	k	f	b
DA 180/170	180	170	20	35	60

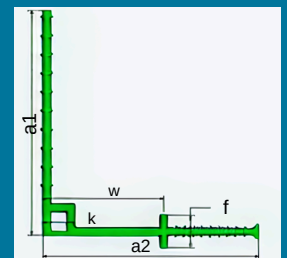


# WATERSTOP SERIES

## D 180/170 WATERSTOP TYPE INTERNAL FLANGED JOINT WATERSTOP



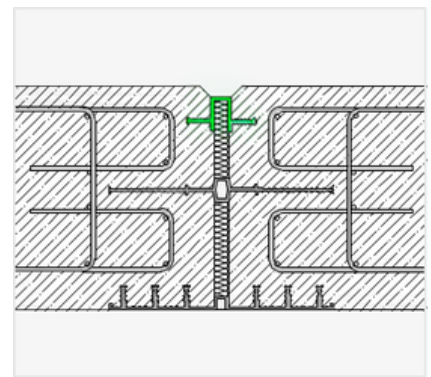
TYPE	$\alpha 1$	$\alpha 2$	k	f	w
D 180/170	180	170	20	26	95



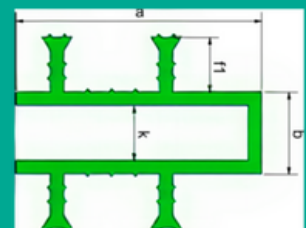
# WATERSTOP SERIES

## FA 50 /FA 70 / FA 130 WATERSTOP TYPE

### JOINT CLOSING WATERSTOP



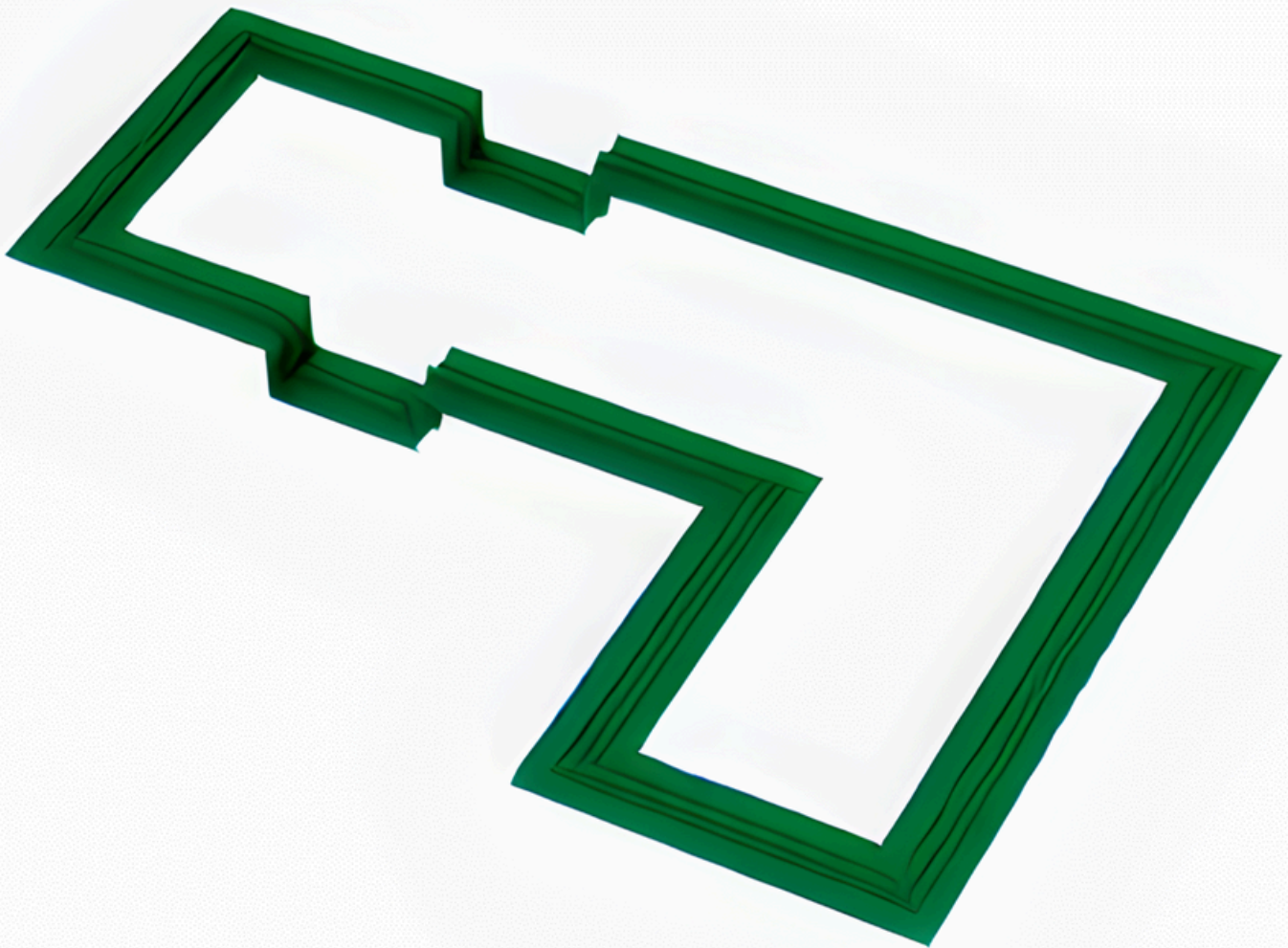
TYPE	a	b	fl	k	Number of anchors
FA-50	50	30	25	20	2
FA-90	90	30	25	20	4
FA-130	130	30	25	20	6



# WATERSTOP WELDED PARTS

## WATERSTOP WELDED SPECIAL PIECES

Can be manufactured special pieces for all types of waterstop with welding method, in every available dimension.



**Note:** The special pieces for the waterstop types D 250/30 and D 320/20 are with monoblock injection molding technology.

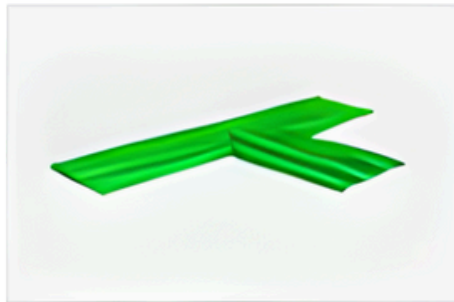
The MONOBLOCK special pieces are eliminating welding failure during the manufacture of the waterstop intersections.

# WATERSTOP WELDED PARTS

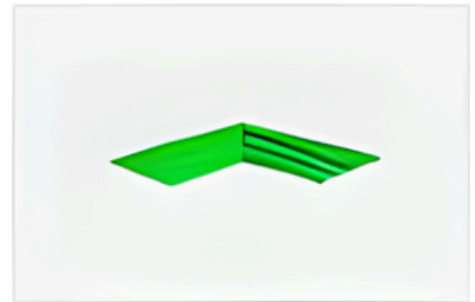
flat crossover



flat T



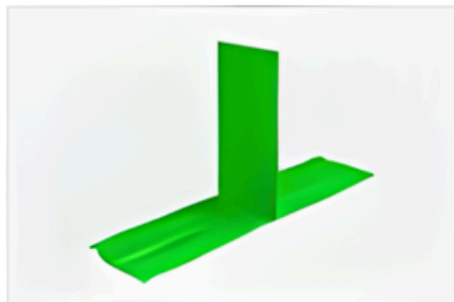
flat corner



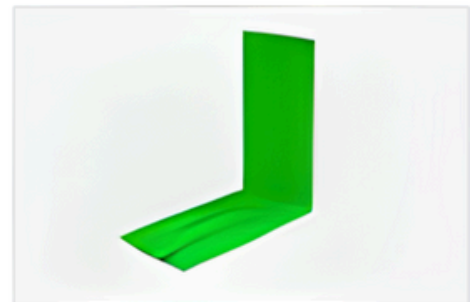
vertical crossover



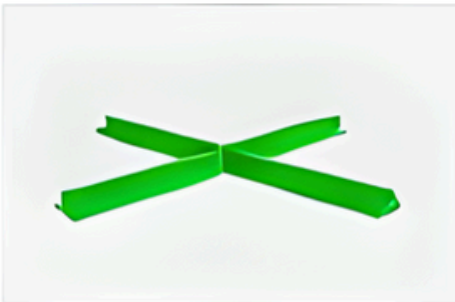
vertical T



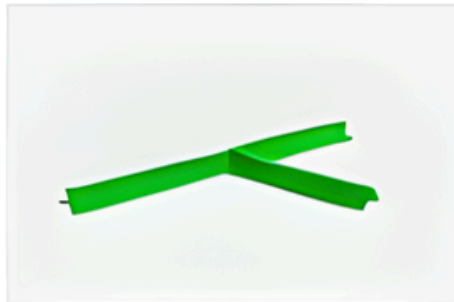
vertical corner



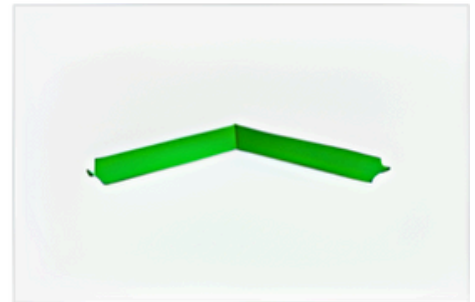
vertical crossover



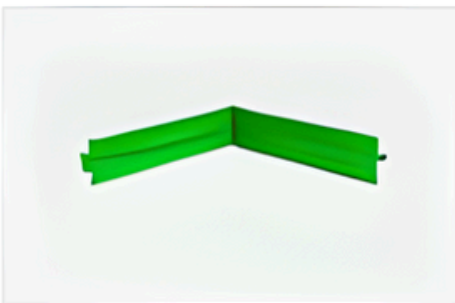
vertical T



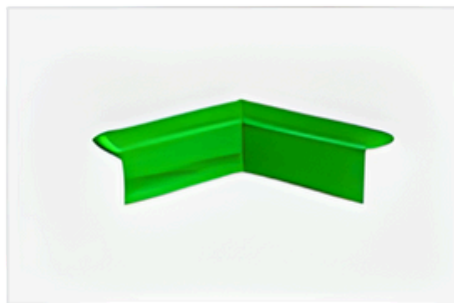
vertical corner



flat corner, external cover plate



mirrored corner



double-angled corner



# FIXING CLIPS FOR WATERSTOPS

Easy anchoring of waterstops with more secure placement in place without movement during concreting. Installation-anchoring on the waterstops without holes.



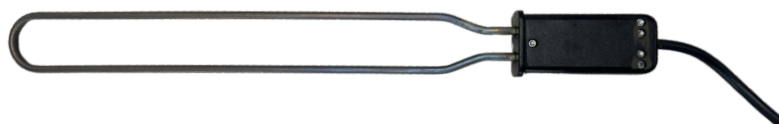
Name	Code	Packing
FIXING CLIP	FIX 20	1000 pcs

# Welding Accessories FOR WATERSTOPS

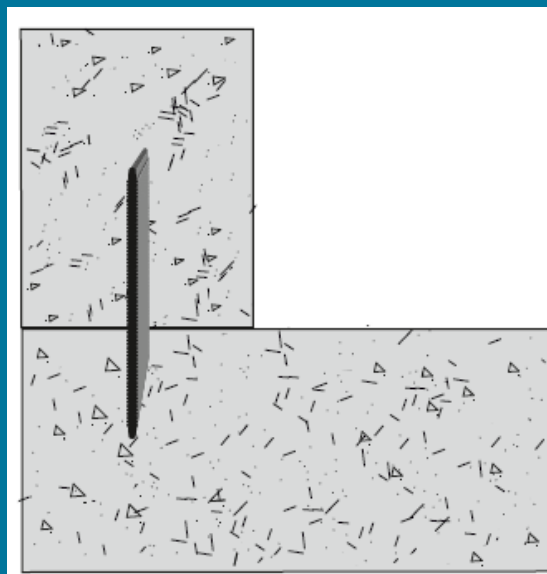
1600W welding hot-air gun



Welding blade

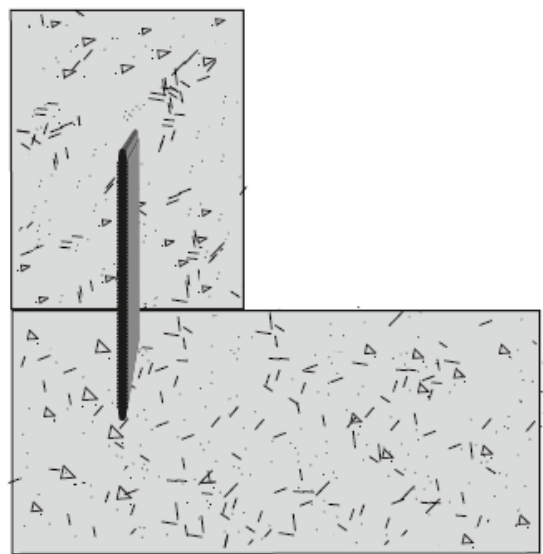


# BLADE WATERSTOP

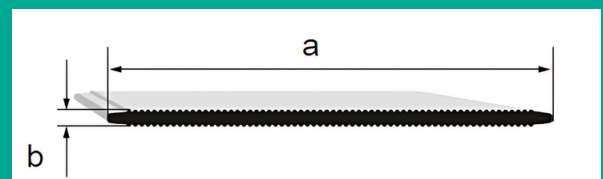


# BLADE WATERSTOP SERIES

## INTERNAL CONSTRUCTION JOINTS WATERSTOP



TYPE	a	b
GK 80/4	80	4 +/- 0,5mm
GK 100/4	100	4 +/- 0,5mm
GK 120/4	120	4 +/- 0,5mm



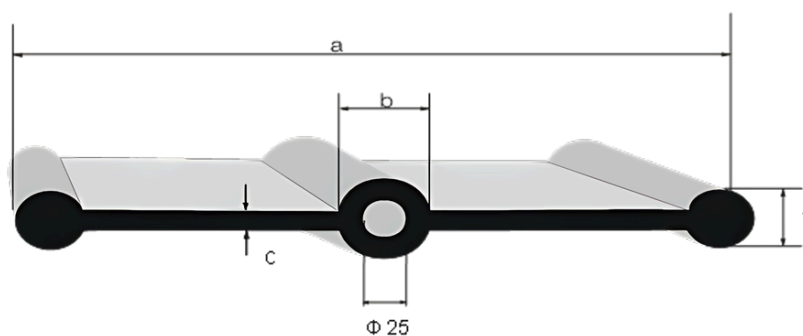
# TPE WATERSTOP SERIES



# TPE WATERSTOPS

## TPE WATERSTOPS INTERNAL EXPANSION JOINTS

TYPE	a	b	f	c
RUB D 150	150	30	19	9,5
RUB D 230	230	30	19	9,5
RUB D 350	350	45	25	10

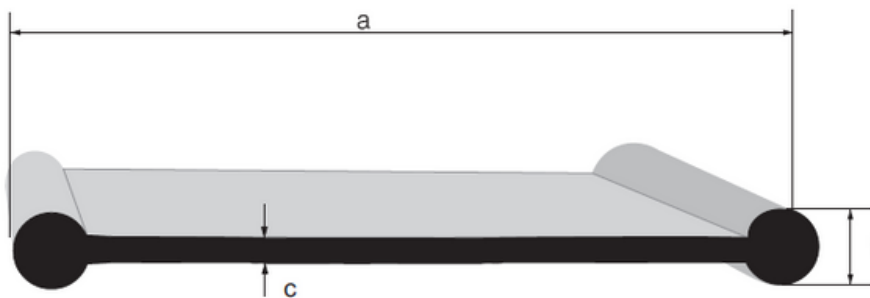


Tensile strength according to EN ISO 37:	$\geq 10 \text{ N / mm}^2$
Elongation at break according to ISO 37	$\geq 850 \%$
Hardness by Shore A EN ISO 868:	65
Tear resistance ISO 34-1 Method C	25 N / mm
CS 23 ° C / 72h	
ISO 815-1 Type B	28 %
CS 70°C / 22h	
ISO 815-1 Type B	44 %
CS 100°C / 22h	
ISO 815-1 Type B	66 %

# TPE WATERSTOPS

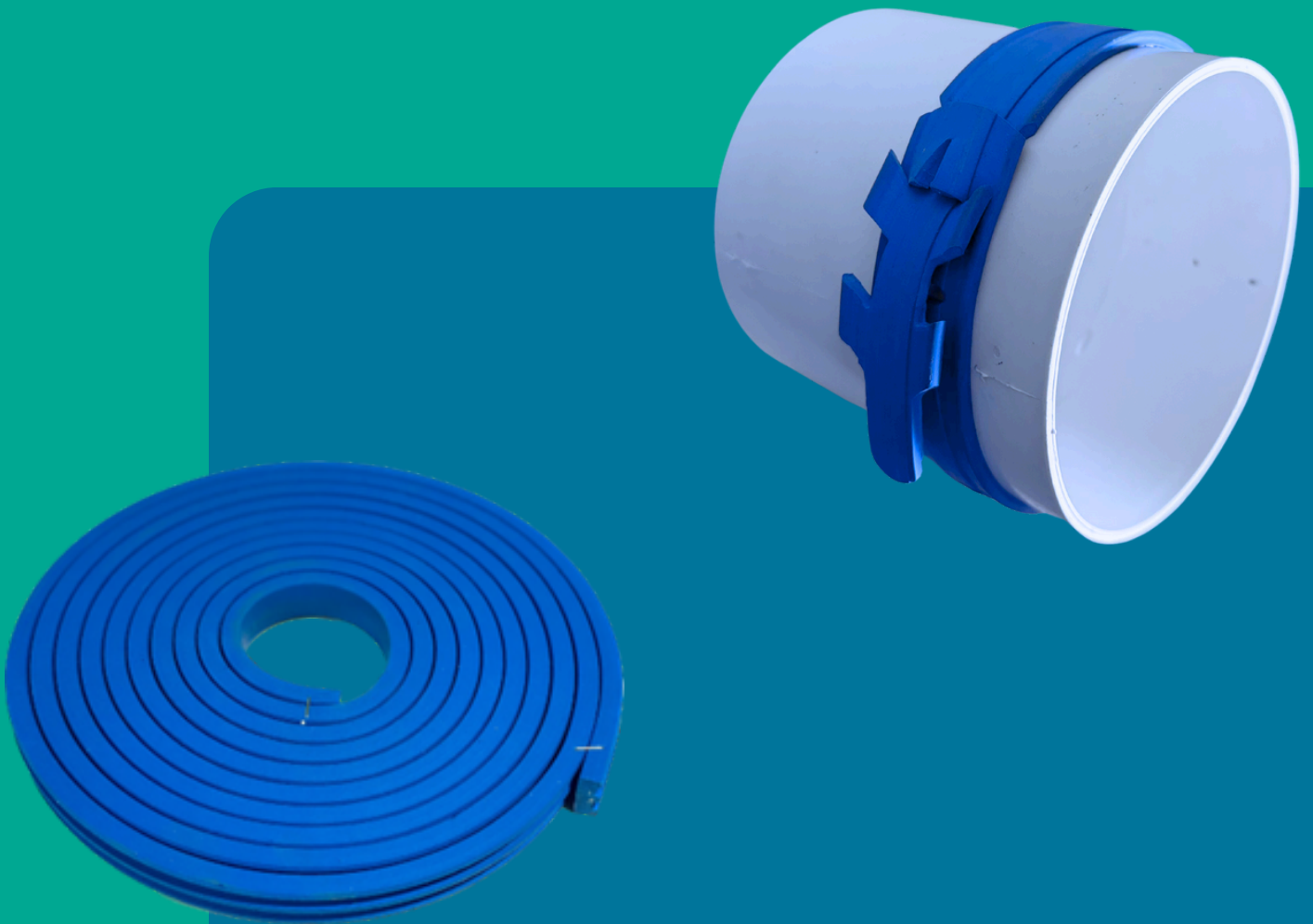
## TPE WATERSTOPS INTERNAL CONSTRUCTION JOINTS

TYPE	a	f	c
RUB D 150 F	150	19	9.5
RUB D 230 F	230	19	9.5

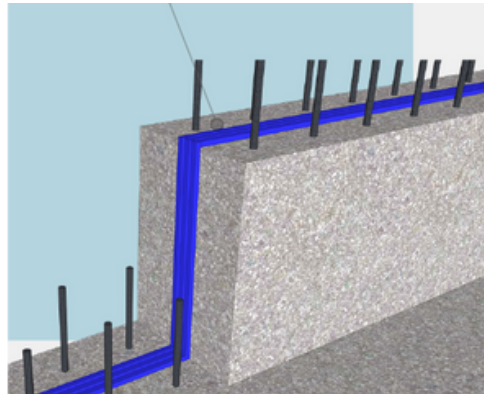


Tensile strength according to EN ISO 37:	$\geq 10 \text{ N / mm}^2$
Elongation at break according to ISO 37	$\geq 850 \%$
Hardness by Shore A EN ISO 868:	65
Tear resistance ISO 34-1 Method C	25 N / mm
CS 23 ° C / 72h	
ISO 815-1 Type B	28 %
CS 70°C / 22h	
ISO 815-1 Type B	44 %
CS 100°C / 22h	
ISO 815-1 Type B	66 %

# SWELLING WATERSTOPS SERIES

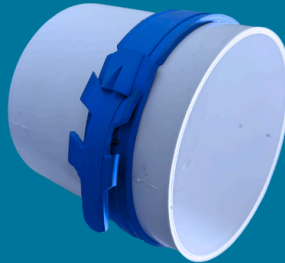


# Swellplas



Name	Code	Width	Thickness	Swelling
SWELLPLAS 5	L5	20mm	5mm	300%- 850%
SWELLPLAS 10	L10	20mm	10mm	300%- 850%

# Swellbelt



The SwellBelt is designed to provide a more efficient, fast sealing solution. Acts as a high pressure water sealing strap around plastic or any pipe of any diameter in concrete structures.



Name	Code	Diameter	Swelling
SB70	Φ70-90	70-90mm	450%
SB110	Φ110-125	110-125mm	450%
SB160	Φ160-200	160-200mm	450%
SB250	Φ250	250mm	450%
SB300	Φ300-320	300-320mm	450%



**Quick installation**



**No more failures**



# Waterstops with Intergrated Injection Hoses

# TECHNICAL DATA

**Basis: PVC (according to DIN 18541-2)**

**Colour: Green**

**Application temperature:  $\geq 0$  °C**

**Tensile strength, in accordance with EN ISO 527:  $\geq 12$  N / mm<sup>2</sup>**

**Elongation at break in accordance with EN ISO 527:  $\geq 350$  %**

**Tear Resistance in accordance with EN ISO 34-1:  $\geq 12,7$  N / mm**

**Elongation at break at -20C in accordance with EN ISO 527:  $>200$  %**

**Hardness per ShoreA in accordance with EN 527:  $67 \pm 5$**

**Reaction to fire: Normal inflammability**

**in accordance with EN 13501:(construction class E)**

## **Resistance to Chemicals:**

### **Type**

**Dilute Acid Very Good**

**Dilute Alkalis Very Good**

**Oils and Greases Good (variable)**

**Sea water Very Good**

**Aromatic Hydrocarbons Poor**

**Halogenated Hydrocarbons Moderate (variable)**

**Alcohols Good (variable)**

**Length: 10-20m**

**Packaging: Rolls**

**Store dry, frost-free, weather protected,**

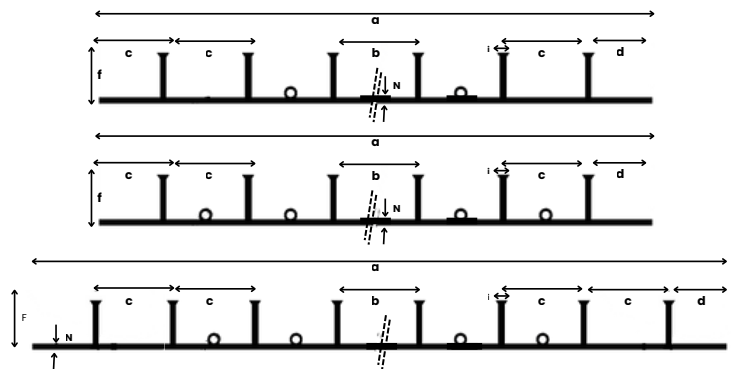
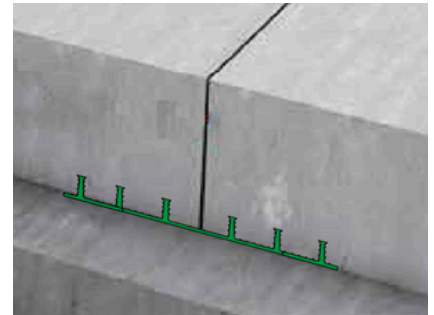
**min. 18 months**

**In general, it is not recommended to use a product after it has expired unless Plastiki Group has given its approval. Only after verifying that the material's primary properties meet specifications may the Plastiki Group's quality assurance department provide this approval.**

# WATERSTOP SERIES

## EXTERNAL CONSTRUCTION JOINTS WATERSTOP

The waterstop AA Injection Hose series is produced for external construction joints **with integrated injection hoses** along the entire length of the waterstop, allowing for intervention and pouring of sealing material in the event of water ingress.



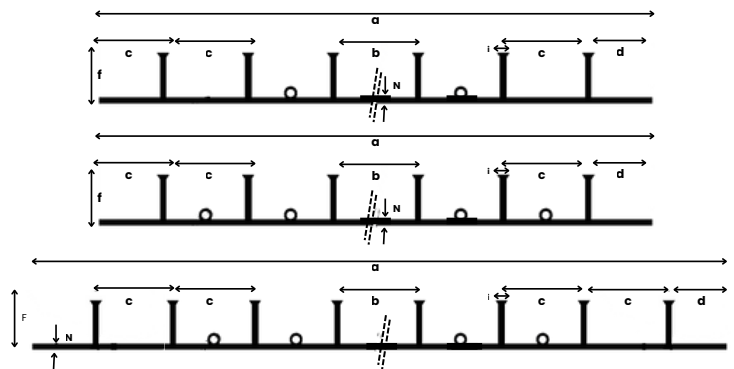
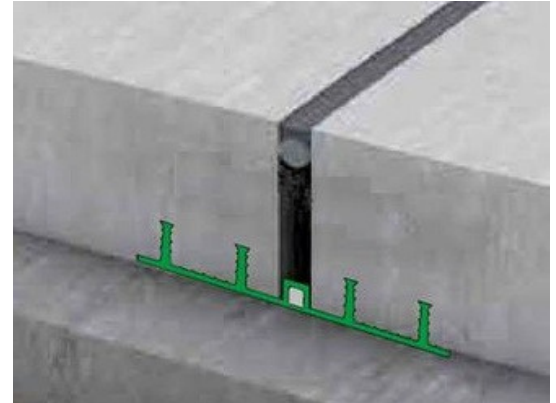
TYPE	a	b	c	f	N	d	i	Pins	Hoses
AA 400/35	400	135	60	34	4	50	11	6	2
AA 600/25	500	160	65	25	4	40	11	8	4
AA600/35	600	220	65	34	4	50	11	6	4

Injection hoses : Interior diameter: 6 mm Exterior diameter: 11 mm

# WATERSTOP SERIES

## EXTERNAL EXPANSION JOINTS WATERSTOP

The waterstop DA Injection Hose series is produced for external expansion joints **with integrated injection hoses** along the entire length of the waterstop, allowing for intervention and pouring of sealing material in the event of water ingress.



TYPE	a	b	c	f	N	d	i	Pins	Hoses
DA 400/35	400	135	60	34	4	50	11	6	2
DA 600/35	600	220	65	34	4	50	11	6	4

Injection hoses : Interior diameter: 6 mm Exterior diameter: 11 mm

# **INJECTION HOSE SYSTEM**

# P11/P19 Injection Hoses

## INJECTION HOSE FOR WATERPROOFING OF CONSTRUCTION JOINTS IN CONCRETE

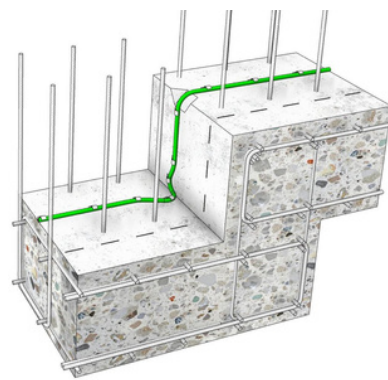
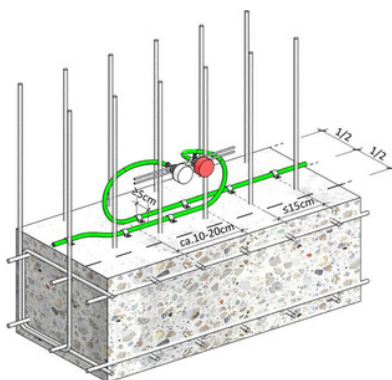
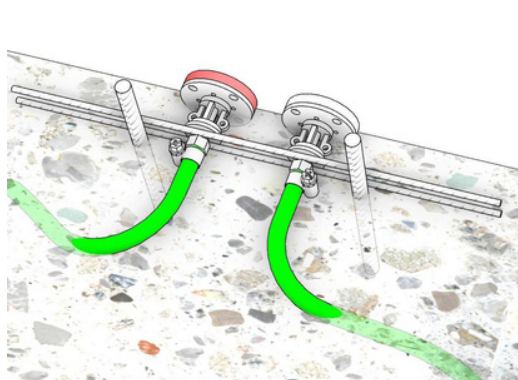
The P11/P19 injection pipe is a single wall flexible PVC injection pipe tested and developed for injection of horizontal and vertical casting joints in reinforced concrete. The unique design and flexibility of the hose allow the P11 to have an injection length of 30 meters.

The smooth surface of the grouting hose prevents unwanted bonding between the concrete and the outer surface of the hose, which eliminates unwanted kinks.

The hose can be injected with various injection agents, e.g. polyurethane, acrylics and cement (P19 only).

The injection hose is usually used as a secondary seal along with other primary joint insulators and should always be grouted at a later stage.

Name	Code	Internal Diameter	External Diameter	m./roll
P11 IH	P11	6mm	11mm	50m./100m.
P19 IH	P19	11mm	19mm	50m./100m.



# P11/P19 Injection Hoses

## Injection Hose Accessories

**CODE:IPA21**



Slat impact packer made of plastic, screwed-in steel cone nipple with check valve, M6 internal thread for pressing cracks in screed and concrete, suitable for dry and damp cracks for cavity filling in concrete parts. Suitable for horizontal barrier to prevent the rising of soil moisture. Packer spacing depends on the thickness of the component.

**Dimensions:**

diameter: 10mm length: 100mm  
10mm length: 75mm

**CODE:IPA78**



Nail packer for injection hoses, with wood screw thread and including red or white protective plug, for sealing construction joints red for venting side, white for filling side

**Dimensions:**

internal thread: M8  
height: 55 mm

**CODE:IPA75**



Hose packer for injection work for connection to injection hoses.

**Dimensions:**

Hose thread 8 mm, M8  
hexagon 13 mm  
Length 65 mm

**CODE:IPA51**



Round plastic adhesive packer with enclosed HD head nipple M8 for screwing. Use with dry components

**Dimensions:**

adhesive surface: 50 mm  
high: 26 mm

**CODE:IPA74**



Plastic connection piece with wood screw thread on both sides for connecting injection hoses.

free passage 0,3 mm

**Dimensions:**

length: 68 mm  
diameter: 8 mm

**CODE:IPA90**



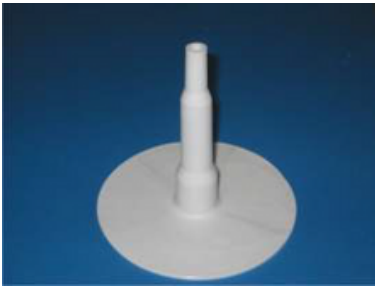
Fixation for injection hose. injection hose system for sealing structural joints.

Drill hole diameter 6mm

# **ACCESSORIES FOR PVC MEMBRANES**

# PIPE FITTING

Pipe fittings are used to seal the membranes during installation and construction. The injection pipe fitting has a smooth flange for welding to PVC or PE membranes and a central stem consisting of three stages. Pipe fittings are welded to the membranes with a special hot air blower, heating gun.

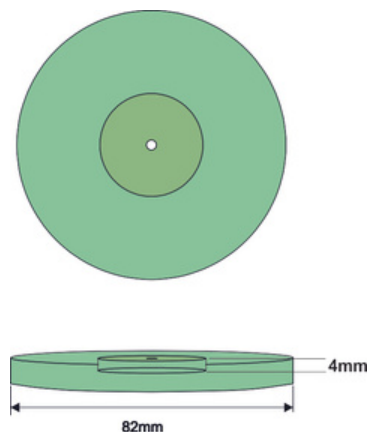


Name	Code	Package
PIPE FITTING	PF	50 pcs

# PVC DISCS

## Discs for the waterproofing mount of membrane

DISCS are used to mount the membrane to the tunnel's wall. Once the discs have been attached to the wall, the waterproof membrane is welded (glued) to the discs by using special hot air blowers. The discs must be welded with a special heating gun. The distance between them must be about 70-80 cm when you install them. The whole surface of the discs must be welded to the PVC sheet to ensure greater watertightness in the event of pressure from standing water.



Name	Code	Package
PVC DISC	RD 80 pvc	500 pcs



## Contact Us

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