



## **KUNEX®** Joint tapes

**Technical information** 

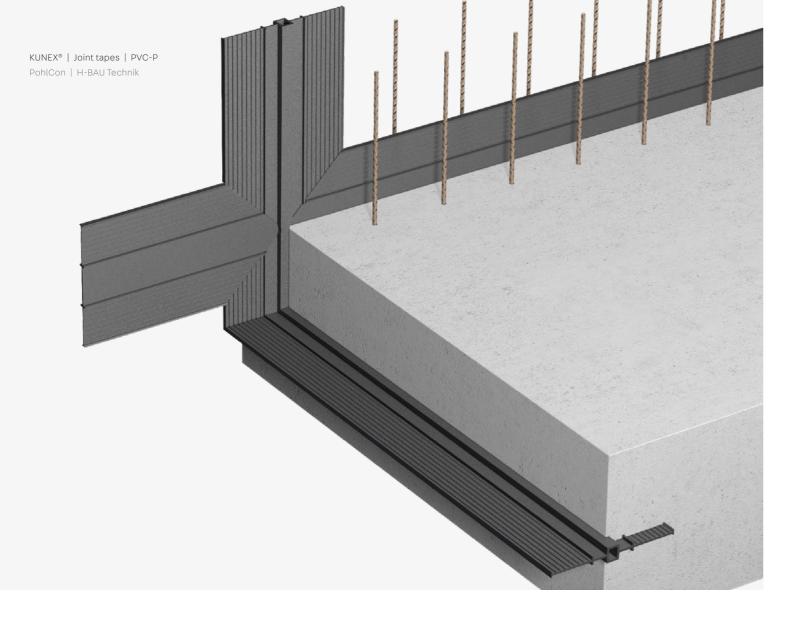




## **Table of contents**

KUNEX®	4
PVC-P joint tapes	d
TPE joint tapes	17
ABS construction joints	28
ABS expansion joints	32
Clamp joint	30
ASF	4:
Star tubes	4(
Puddle flanges	50
Formed parts and accessories	54

oint tape selection	64
n line with DIN 18197	64
n line with factory standard	69
Service	72
Order sheets	72
Our synergy concept or you	74



## **KUNEX®** Joint tapes

For sealing construction joints and expansion joints in concrete

KUNEX® interior or exterior thermoplastic joint tapes are used to seal construction and expansion joints in concrete. The tape profile is designed to extend the circulation path of standing water in the joint, thereby sealing the joint. Thermoplastic joint tapes can be welded together to ensure water-tightness.

#### **Application**

KUNEX® high-quality joint tapes are used in all horizontal or vertical construction and expansion joints to resist water under pressure, water not under pressure and soil moisture:

- Foundation slab/wall or wall/ceiling construction joint
- Floor/floor, wall/wall or ceiling/ceiling construction and expansion joints
- Dummy joints in in-situ concrete or element wall constructions

KUNEX® joint tapes are suitable for use in structures in accordance with the German watertight concrete guideline.



- Joint tapes in line with DIN 18541
- Joint tapes in line with factory standard (with abP (German building code test certificate))
- Steel-reinforced joint tapes
- Joint tapes with eyelets
- Excellent welding properties

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KUNEX® | Joint tapes | PVC-P

### **KUNEX® PVC-P joint tapes**

#### **Technical information**

#### Materials

PVC-P raw material in the following quality classes:

- DIN 18541 compatible with bitumen (BV) or not compatible with bitumen (NB)
- Factory standard not compatible with bitumen (NB)

#### Compatibility with bitumen

Standard joint tapes correspond to quality class NB (not compatible with bitumen). The joint tapes are optionally available in the quality class BV (compatible with bitumen).

#### PVC-P in line with DIN 18541

Joint tapes made of soft PVC in the DIN quality class are ideal for use in structures subject to very high loads. These joint tapes comply with the high standards of DIN 18541. Continuous production inspections guarantee a consistently high level of quality. The special formula further improves the characteristic properties of these joint tapes. They are more elastic and have a higher elongation at break and tensile strength.

#### PVC-P in line with factory standard

Joint tapes made of soft PVC in the factory standard quality class are ideal for use in concrete structures subject to normal loads. The advantages of this material quality class are good workability, welding properties, resistance and optimised value for money.

#### Material parameters

Properties	DIN 18541	Factory standard
Tensile strength in line with DIN EN ISO 527	≥ 10 N / mm²	≥ 9 N / mm²
Elongation at break in line with DIN EN ISO 527	≥ 350%	≥ 230%
Hardness according to Shore A DIN 53505	67 ± 5	67 ± 5
Reaction to fire in line with DIN EN 13501	Normal flammability (building material class E)	Normal flammability (building material class E)
Temperature resistance	-20 to +60°C	-20 to +60°C

#### Transport and storage



#### Transportation

The joint tape must be loaded and unloaded carefully and secured during transportation. It must be examined for damage and completeness after delivery. At high outside temperatures, joint tapes must be transported without being subjected to any tension and then laid out at the installation site.



#### Storage in winter

In winter, joint tapes made from PVC-P must be stored in closed rooms and on a solid, dry base (transport pallet) where possible. We recommend storing the tapes in a heated room before use to make installation and processing easier.



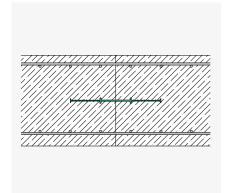
#### Storage in summer

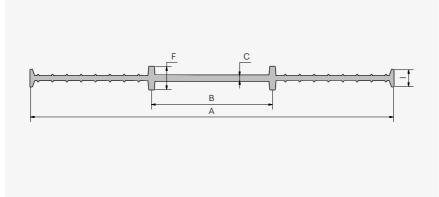
It is important to store joint tapes in a cool and dry place in summer. Joint tapes must also be protected from direct sunlight (e.g. by covering them).

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### KUNEX® construction joint tape, interior

#### Technical data





Type DIN 18541	Type Factory standard	<b>A</b> mm	<b>F</b> mm	<b>B</b> mm	<b>C</b> mm	<b>I</b> mm
-	A100	100	8	47	2.0	8
-	A150	150	15	55	3.0	11
-	A190	190	15	70	3.0	11
A240 DIN	A240	240	15	80	3.5	11
A320 DIN	A320	320	15	100	4.5	11
A500 DIN	A500	500	20	150	6.0	11

Joint tapes up to 320 mm wide can be supplied with eyelets on one (o) or both sides (o2) on request. The eyelets are spaced 200 mm apart. The eyelets replace the joint tape clips that would otherwise be required to fix the joint tapes in place.



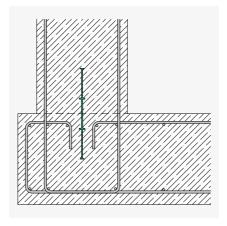
Example order KUNEX® construction joint tape, interior, A320 DIN

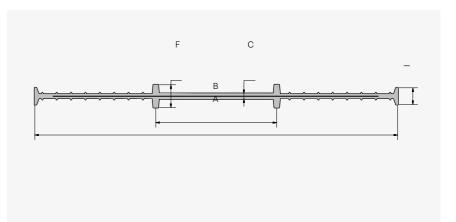
Type	А	Standard
Α	320	DIN

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## KUNEX® Construction joint tape, interior, steel-reinforced

#### Technical data





Туре	А	F	В	С	1
Factory standard	mm	mm	mm	mm	mm
A100S	100	15	40	3.5	11
A150S	150	15	58	3.5	11
A190S	190	15	78	4.0	11
A240S	240	15	85	4.0	11
A320S	320	15	100	4.5	11

Joint tapes up to 320 mm wide can be supplied with eyelets on one (o) or both sides (o2) on request. The eyelets are spaced 200 mm apart

The eyelets replace the joint tape clips that would otherwise be required to fix the joint tapes in place.

#### Bar spacing

100 mm (S) = 10 × spring steel insert/m (Type example: A190 S) 125 mm (SL) = 8 × spring steel insert/m (Type example: A190 SL) 150 mm (SL7) = 7 × spring steel insert/m (Type example: A190 SL7) 175 mm (SL6) = 6 × spring steel insert/m (Type example: A190 SL6) 200 mm (SL5) = 5 × spring steel insert/m (Type example: A190 SL5)



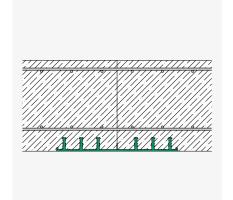
Example order KUNEX® construction joint tape steel-reinforced A320S

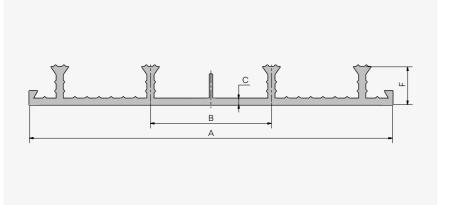
Туре	Α	Bar spacing	
Α	320	S	

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### KUNEX® Construction joint tape, exterior

#### Technical data





Type DIN 18541	Type Factory standard	<b>A</b> mm	<b>F</b> mm	<b>B</b> mm	<b>C</b> mm	No. of stop anchors
_	AA190/17	190	17	80	3.7	4
AA240/20 DIN	AA240/20	240	20	80	4.0	4
AA240/25 DIN	AA240/25	240	25	80	4.0	4
AA240/35 DIN	AA240/35	240	35	84	4.0	4
-	AA320/20	320	20	100	4.0	6
AA320/25 DIN	AA320/25	320	25	100	4.0	6
AA320/35 DIN	AA320/35	320	35	100	4.0	6
AA500/35 DIN	AA500/35	500	35	120	4.0	8



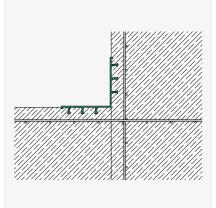
**Example order** KUNEX® construction joint tape, exterior, AA320/25 DIN

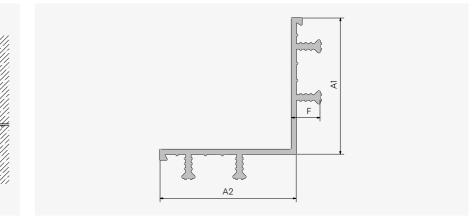
AA	320	/	25	DIN
Type	Α	/	F	Standard

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### KUNEX® corner joint tape for construction joints

### Technical data





Type DIN 18541-2	Type Factory standard	A1 mm	<b>A2</b> mm	<b>F</b> mm	No. of stop anchors
AA120/120 EA DIN	AA120/120 EA	120	120	25	4
AA165/165 EA DIN	AA165/165 EA	165	165	25	6



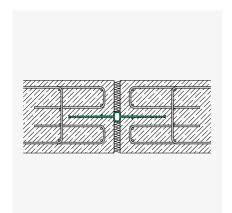
**Example order** KUNEX® corner joint tape for construction joints AA120/120 EA

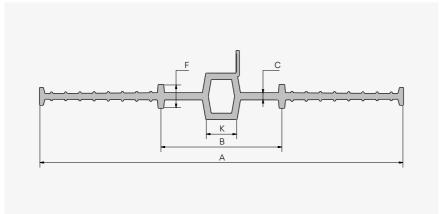
Туре	A1	/	Α2	Construction	Standard
AA	120	/	120	EA	-

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### KUNEX® expansion joint tape, interior

#### Technical data





Type DIN 18541	Type Factory standard	<b>A</b> mm	<b>K</b> mm	<b>F</b> mm	<b>B</b> mm	<b>C</b> mm
-	D150	150	10	15	55	3.5
-	D190	190	10	15	70	3.5
D240 DIN	D240	240	20	15	80	4.0
D320 DIN	D320	320	20	15	100	5.0
D400 DIN	D400	400	20	16	125	5.2
D500 DIN	D500	500	20	20	150	6.0

Joint tapes up to 320 mm wide can be supplied with eyelets on one (o) or both sides (o2) on request. The eyelets are spaced 200 mm apart. The eyelets replace the joint tape clips that would otherwise be required to fix the joint tapes in place.



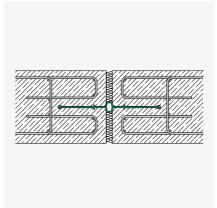
Example order KUNEX® expansion joint tape, interior, D320 DIN

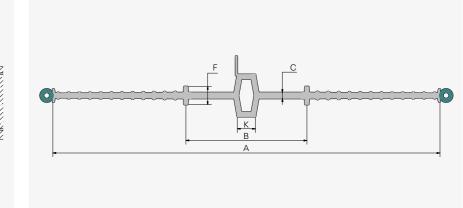
Type	Α	Standard
D	320	DIN

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## KUNEX® expansion joint tape, interior With injection hose

#### Technical data





Type DIN 18541	Type Factory standard	<b>A</b> mm	<b>K</b> mm	<b>F</b> mm	<b>B</b> mm	<b>C</b> mm
D240 C11 DIN	D240 C11	240	20	15	80	4.0
D320 C11 DIN	D320 C11	320	20	15	100	5.0
D500 C11 DIN	D500 C11	500	20	20	150	6.0

Injection hose dimensions: Outside 11 mm, inside 6 mm.



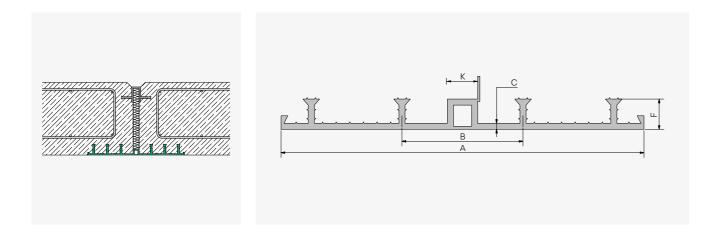
Example order KUNEX® expansion joint tape, interior, with injection hose D320 C11 DIN

Туре	Α	Injection hose	Standard
D	320	C11	DIN

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### KUNEX® Expansion joint tape, exterior

#### Technical data



Type DIN 18541	Type Factory standard	<b>A</b> mm	<b>K</b> mm	<b>F</b> mm	<b>B</b> mm	<b>C</b> mm	No. of stop anchors
-	DA190/17	190	20	17	80	3.7	4
DA240/20 DIN	DA240/20	240	20	20	80	4.0	4
DA240/35 DIN	DA240/35	240	20	35	84	4.0	4
-	DA320/20	320	20	20	100	4.0	6
DA320/25 DIN	DA320/25	320	20	25	100	4.0	6
DA320/35 DIN	DA320/35	320	20	35	100	4.0	6
DA500/35 DIN	DA500/35	500	20	35	120	4.0	8

 $Joint \, tapes \, up \, to \, 320 \, mm \, wide \, can \, be \, supplied \, with \, eyelets \, on \, one \, (o) \, or \, both \, sides \, (o2) \, on \, request. \, The \, eyelets \, are \, spaced \, 200 \, mm \, apart.$ 

 $The \ eyelets \ replace \ the \ joint \ tape \ clips \ that \ would \ otherwise \ be \ required \ to \ fix \ the \ joint \ tapes \ in \ place.$ 



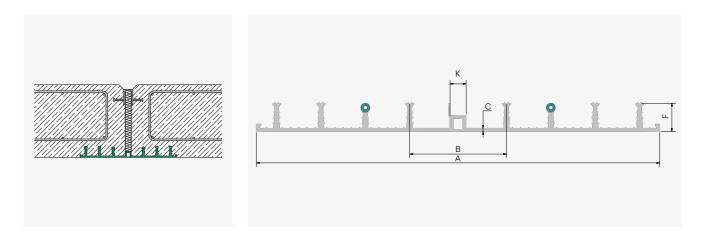
Example order KUNEX® expansion joint tape, exterior, DA320/25 DIN

Type	Α	/	F	Standard
DA	320	/	25	DIN

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## KUNEX® Expansion joint tape, exterior With injection hose

#### Technical data



Type DIN 18541	Type Factory standard	<b>A</b> mm	<b>K</b> mm	<b>F</b> mm	<b>B</b> mm	<b>c</b> mm	No. of stop anchors
DA240/20 C11 DIN	DA240/20 C11	240	20	20	80	4.0	4
DA240/35 C11 DIN	DA240/35 C11	240	20	35	84	4.0	4
DA320/25 C11 DIN	DA320/25 C11	320	20	25	100	4.0	6
DA320/35 C11 DIN	DA320/35 C11	320	20	35	100	4.0	6
DA500/35 C11 DIN	DA500/35 C11	500	20	35	120	4.0	8

 $Injection\ hose\ dimensions:\ Outside\ 11\ mm, inside\ 6\ mm.\ The\ number\ and\ position\ of\ the\ injection\ hoses\ can\ be\ varied.$ 



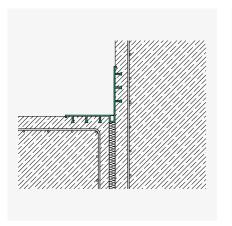
**Example order** KUNEX® expansion joint tape, exterior, with injection hose DA320/25 C11 DIN

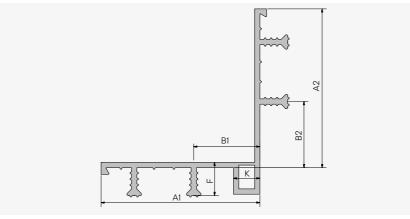
Type	Α	/	F	Injection hose	Standard
DA	320	/	25	C11	DIN

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### KUNEX® corner joint tape for expansion joints

### Technical data





Type DIN 18541-2	Type Factory standard	<b>A1 / A2</b> mm	<b>K</b> mm	<b>F</b> mm	<b>B1/B2</b> mm	No. of stop anchors
DA120/120 EA DIN	DA 120/120 EA	120/120	20	25	50/50	4
DA165/165 EA DIN	DA 165/165 EA	165/165	20	25	50/50	6



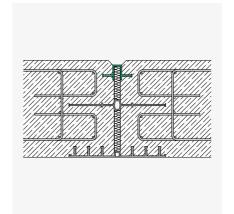
Example order KUNEX® corner joint tape for expansion joints DA 165/165 EA

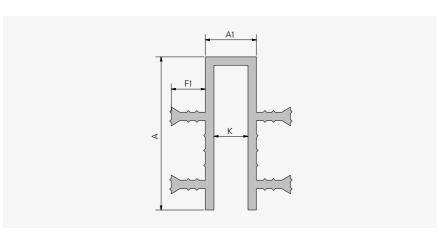
Type	A1	/	A2	Construction	Standard
DA	165	/	165	EA	-

KUNEX® | Joint tapes | PVC-P
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### KUNEX® joint end tape

#### Technical data





Type DIN 18541	Type Factory standard	<b>A</b> mm	<b>F1</b> mm	<b>B</b> mm	<b>K</b> mm	No. of stop anchors
FA50/20 DIN	FA50/20	50	20	30	20	2
FA50/30 DIN	FA50/30	50	30	30	20	2
FA70/40 DIN	FA70/40	70	40	30	20	2
FA90/20 DIN	FA90/20	90	20	30	20	4
FA95/30 DIN	FA95/30	95	30	30	20	4
FA130/20 DIN	FA130/20	130	20	30	20	6

KUNEX® joint end tape in grey PVC-P for closing the surfaces of movement joints.



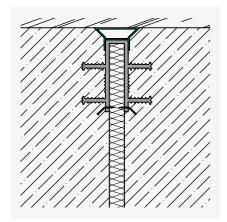
**Example order** KUNEX® joint end tape FA130/20 DIN

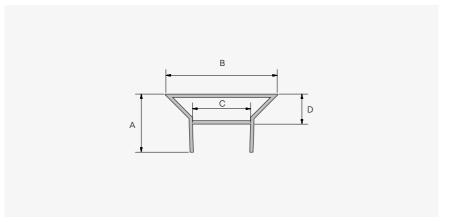
Type	Α	/	F1	Standard
FA	130	/	20	DIN

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### KUNEX® joint end strip

#### **Technical information**





Туре	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>Length</b>
	mm	mm	mm	mm	m
FL30/60	30	60	30	15	2.50

KUNEX® joint end strip made from hard PVC is a suitable assembly aid for joint end tapes.



Example order KUNEX® joint end strip FL30/60

Type	Α	/	В
FL	30	/	60

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### **KUNEX® TPE joint tapes**

#### **Technical information**

#### Materials

TPE raw material in the following quality class:

• Factory standard compatible with bitumen (BV)

#### Compatibility with bitumen

Joint tapes correspond as standard to the quality class BV (compatible with bitumen)

#### TPE in line with factory standard

Joint tapes made of thermoplastic elastomer (TPE) combine the simple processing method of a plastic and the positive qualities of an elastomer (such as durability, flexibility at low temperatures, elongation at break and tensile strength). TPE joint tapes are PVC-free and completely recyclable. Their usability is governed by a German building code test certificate (abP), indicated by the Ü compliance mark and monitored accordingly.



### +

#### **Benefits**

- Joint tapes in line with factory standard (with German building code test certificate (abP))
- Steel-reinforced joint tapes
- Joint tapes with eyelets
- Better properties than PVC
- PVC- and halogen- free
- Completely recycleable
- Excellent resistance
   (e.g. liquid manure, slurry, silage effluent)
   with inspection report

#### **Material parameters**

Properties	Factory standard
Tensile strength in line with DIN EN ISO 527	≥ 11 N / mm²
Elongation at break in line with DIN EN ISO 527	≥ 500%
Hardness according to Shore A DIN 53505	74 ± 5
Reaction to fire in line with DIN EN 13501	Normal flammability (building material class E)
Temperature resistance	-40 to +80°C

<sup>\*</sup>NEW with German building code test certificate (abP)

#### Transport and storage



#### Transportation

The joint tape must be loaded and unloaded carefully and secured during transportation. It must be examined for damage and completeness after delivery. At high outside temperatures, joint tapes must be transported without being subjected to any tension and then laid out at the installation site.



#### Storage in winter

In winter, joint tapes made from PVC-P must be stored in closed rooms and on a solid, dry base (transport pallet) where possible. We recommend storing the tapes in a heated room before use to make installation and processing easier.



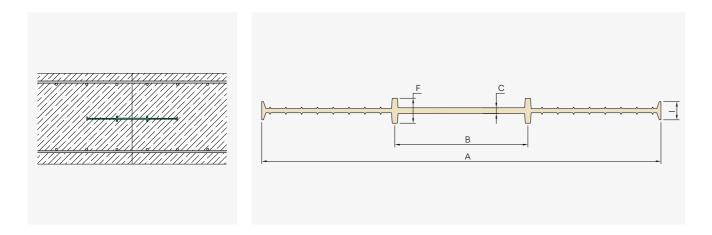
#### Storage in summer

It is important to store joint tapes in a cool and dry place in summer. Joint tapes must also be protected from direct sunlight (e.g. by covering them). KUNEX® | Joint tapes | TPE

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### KUNEX® TPE construction joint tape, interior

#### Technical data



Туре	Α	F	В	С	1
Factory standard	mm	mm	mm	mm	mm
A240 TPE	240	14	80	3.5	11
A320 TPE	320	14	100	4.5	11
A500 TPE	500	20	150	6.0	11

Joint tapes up to 320 mm wide can be supplied with eyelets on one (o) or both sides (o2) on request. The eyelets are spaced 200 mm apart. The eyelets replace the joint tape clips that would otherwise be required to fix the joint tapes in place.



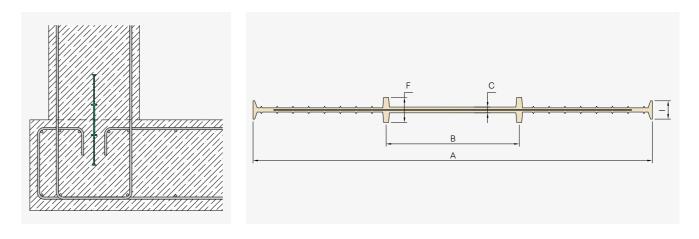
**Example order** KUNEX® Construction joint tape, interior, A320 TPE

Type	Α	Construction
Α	320	TPE

KUNEX® | Joint tapes | TPE
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## KUNEX® TPE construction joint tape, interior, steel-reinforced

#### Technical data



Type Factory standard	<b>A</b> mm	<b>F</b> mm	<b>B</b> mm	<b>C</b> mm	<b>I</b> mm
A240SL7 TPE	240	15	85	4.0	11
A320SL7 TPE	320	15	100	4.0	11

Joint tapes up to 320 mm wide can be supplied with eyelets on one (o) or both sides (o2) on request. The eyelets are spaced 200 mm apart The eyelets replace the joint tape clips that would otherwise be required to fix the joint tapes in place.

#### Bar spacing

150 mm (SL7) = 7 × spring steel insert/m (Type example: A240 SL7)



**Example order** KUNEX® Construction joint tape, interior, steel-reinforced A320SL7 TPE

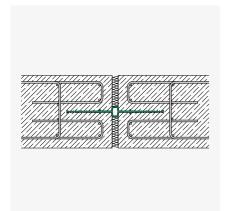
Type	Α	Bar spacing	Construction
Α	320	SL7	TPE

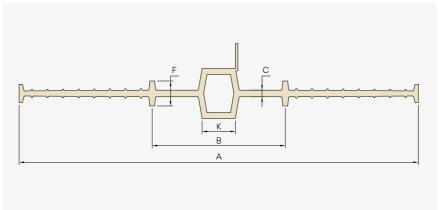
KUNEX® | Joint tapes | TPE

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### KUNEX® TPE expansion joint tape, interior

#### Technical data





Type Factory standard	<b>A</b> mm	<b>K</b> mm	<b>F</b> mm	<b>B</b> mm	<b>C</b> mm
D240 TPE	240	20	15	80	4.0
D320 TPE	320	20	15	100	5.0
D500 TPE	500	20	20	150	6.0

Joint tapes up to 320 mm wide can be supplied with eyelets on one (o) or both sides (o2) on request. The eyelets are spaced 200 mm apart. The eyelets replace the joint tape clips that would otherwise be required to fix the joint tapes in place.



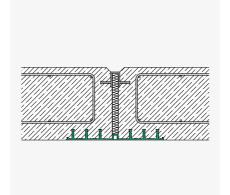
Example order KUNEX® expansion joint tape, interior, A320 TPE

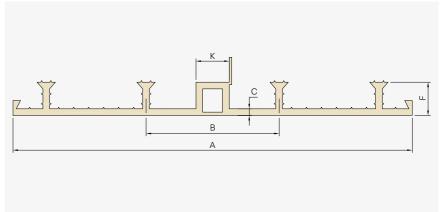
Type	Α	Construction
D	320	TPE

KUNEX® | Joint tapes | TPE
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### KUNEX® TPE expansion joint tape, exterior

#### Technical data





Type Factory standard	<b>A</b> mm	<b>K</b> mm	<b>F</b> mm	<b>B</b> mm	<b>C</b> mm	No. of stop anchors
DA240/20 TPE	240	20	20	80	4.0	4
DA240/35 TPE	240	20	35	84	4.0	4
DA320/25 TPE	320	20	25	100	4.0	6
DA320/35 TPE	320	20	35	100	4.0	6
DA500/35 TPE	500	20	35	120	4.0	8

 $Joint\ tapes\ up\ to\ 320\ mm\ wide\ can\ be\ supplied\ with\ eyelets\ on\ one\ (o)\ or\ both\ sides\ (o2)\ on\ request.\ The\ eyelets\ are\ spaced\ 200\ mm\ apart.$ 

 $\label{thm:condition} The \ \text{eyelets replace the joint tape clips that would otherwise be required to fix the joint tapes in place.}$ 



 $\textbf{Example order} \, \texttt{KUNEX} \\ ^{\circledcirc} \, \texttt{expansion joint tape}, \texttt{exterior}, \texttt{DA320/25} \, \texttt{TPE}$ 

Type	Α	/	F	Construction
DA	320	/	25	TPE

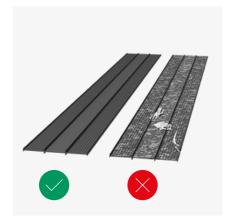
KUNEX® | Joint tapes | Installation instructions

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22

### **Installation instructions**

### Installation and processing

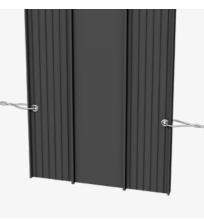


#### Before installation

Check the joint tapes

- for damage, contamination and deformation.
- Install without folds or distortions.
- Only process at material temperatures > 0°C.
- Ensure that the concrete is free of ice when casting.



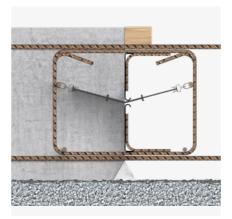


#### Attachment

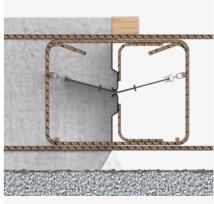
Fixed in place with eyes or clips. The maximum spacing must not exceed 250 mm.

### **Installation instructions**

#### Positional stability



Floor/floor construction joint: Shuttering with ABS R for rough joints.



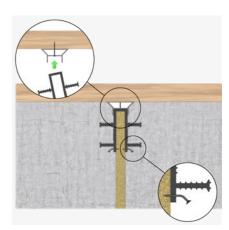
Floor/floor construction joint: Shuttering with ABS V for interlocking joints.



Floor/wall construction joint: Fixed to reinforcement.



Wall/wall construction joint: Fixed to the formwork.



H2 hier entfernen?

Wall/wall expansion joint: Fixed to the joint end tape using the joint end strip on the formwork.

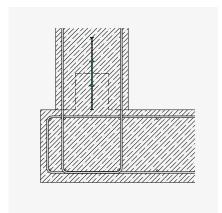


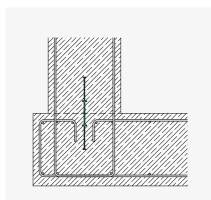
Bend horizontal joints into a V shape at an angle of ~15°. Only use nails in the outer edge area of the joint tapes.

KUNEX® | Joint tapes | Installation instructions
PohlCon | H-BAU Technik

24

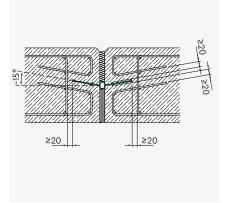
### Positional stability

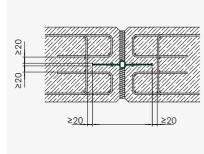




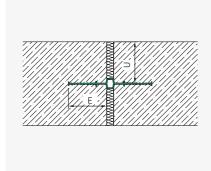
Floor slab/wall connection

Version with concrete upstand or
without upstand for corresponding
reinforcement layout.





Distance to reinforcement
The distance between the joint tape
and the reinforcement must be at least
20 mm.



Concrete cover and anchoring depth Interior joint tapes should roughly correspond to the component thickness and be positioned centrally in the component. The anchoring depth (E) must not exceed the cover (U).

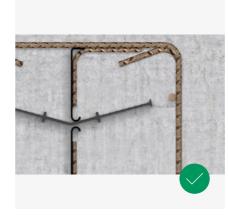


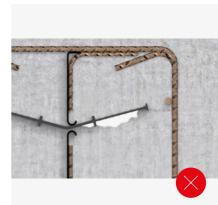
Minimum component thicknesses in accordance with the German watertight concrete guideline must be observed.

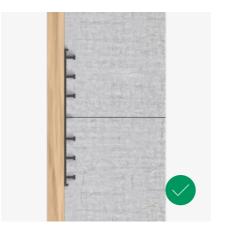
### **Installation instructions**

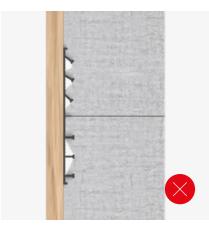
H2 hier entfernen?

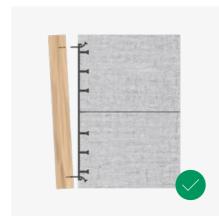
Casting













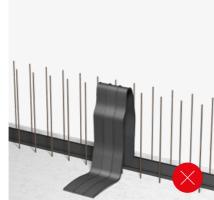
Removal

KUNEX® | Joint tapes | Installation instructions 26 Notes PohlCon | H-BAU Technik

### **Installation instructions**

H2 hier entfernen?





Care



#### Inspection

After removing the shuttering, inspect the visible areas of the joint tapes for damage. Rectify any defects immediately.



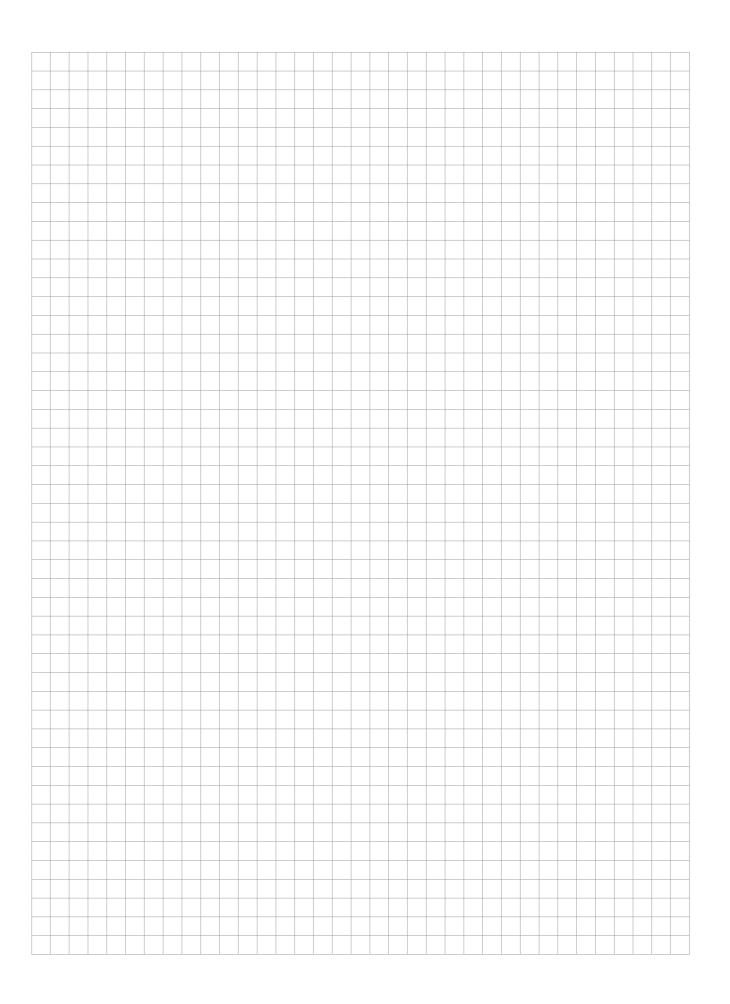
#### Documentation

The handling, processing and installation of the joint tapes on the construction site must be monitored and documented in line with the specific quality assurance procedures applicable to the property. Our CAD drawings of the joint tape systems and the test report for construction site joints in DIN 18197 can be used as a basis for this documentation.



Our Application Technology department will be happy to assist you with further solutions.

T +49 7742 9215-300 technik@h-bau.de





## **KUNEX®** ABS construction joints

Shuttering element for interior construction joint tapes

#### The produc

The KUNEX® shuttering element is a combination of construction joint tape and profiled formwork. The joint is reliably sealed by the joint tape. The shuttering is created using dimensionally stable expanded metal elements reinforced using a special stirrup construction. The ABS element can be supplied for rough or interlocking joints (ABS A-R, ABS A-V).

#### Area of application

KUNEX® ABS is a shuttering element for construction joints in reinforced concrete components that are exposed to water (floors, walls and ceilings), particularly for applications that require bond joints with a high shear strength.



#### enefits

- High shear strength in the bond joint
- For continuous reinforcement
- Two-part cage for quick joint tape installation
- Distance to reinforcement in line with DIN

KUNEX® | ABS construction joints

PohlCon | H-BAU Technik

### **Technical information**



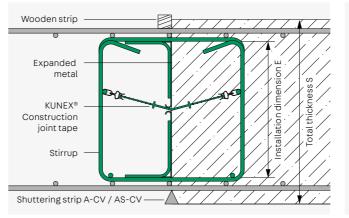
#### Basic information

- Two-part shuttering element for watertight construction joints in reinforced concrete construction
- Top and bottom parts consisting of expanded metal and steel stirrups
- Standard length of shuttering element: L = 2.4 m
- Special lengths and special forms available on request
- Installation dimension E = 150 500 mm

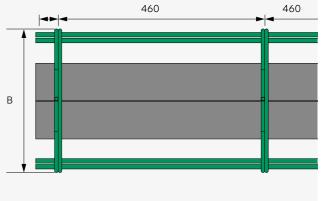
#### Accessories

- KUNEX® Construction joint tape A240 or A320
- Shuttering strip A-CV/AS-CV for reducing loss of fine particles, see page 34 and 35

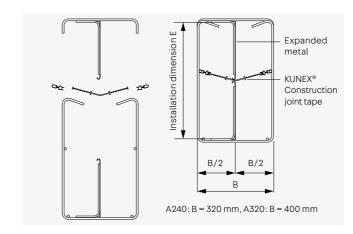
#### System cross section



#### Top view

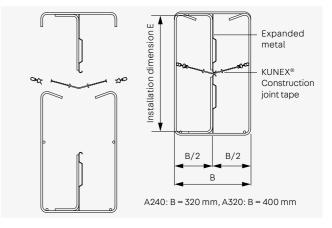


#### **Versions**



#### KUNEX® ABS A-R

Rough joint in line with EC2  $\,$  Installation dimension: 150 - 500 mm



#### KUNEX® ABS A-V

Interlocking joint in line with EC2  $\mid$  Installation dimension: 150 – 500 mm

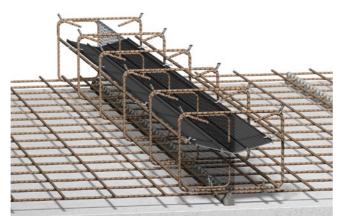
KUNEX® | ABS construction joints | Accessories

PohlCon | H-BAU Technik

### Accessories

### A-CV fibre concrete shuttering strip





#### The product

This spacer is made from fibre-reinforced concrete with a 50 mm reinforcement grid. It is an ideal complement to the KUNEX® ABS shuttering element with either a rough or interlocking design. The A-CV shuttering strip reliably reduces the leakage of concrete and the associated loss of fine particles to a minimum.



It can accommodate bar diameters from 6 to 14 mm and is available for concrete coverages from 20 to 60 mm thick.

#### Area of application

The A-CV shuttering strip also serves as a gauge when installing steel bars, eliminating the need to measure and mark a grid on the subbase. The A-CV shuttering strip is used for a range of concrete covering thicknesses when laying longitudinal and transverse reinforcements.

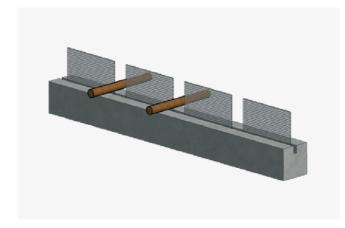
Туре	Concrete cover mm	Height/length mm
A-CV 20	20	40/1000
A-CV 25	25	45/1000
A-CV 30	30	50/1000
A-CV 35	35	55/1000
A-CV 40	40	60/1000
A-CV 45	45	65/1000
A-CV 50	50	70/1000
A-CV 60	60	80/1000

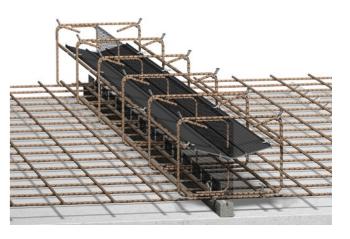


#### **Benefits**

- No seepage from construction joints
- Saves time
- Improves quality
- Universal use
- Simplifies on-site monitoring and rebar inspection

#### AS-CV fibre concrete shuttering strip





#### The product

Spacers ensure that the reinforcements are covered with concrete and shuttering elements provide a simple and economical way of making construction joints watertight. However, these sections of the construction joint shuttering are not normally closed. This allows concrete to leak out, something which is not conducive to achieving a geometrically perfect joint. These sections of the construction joint shuttering are not normally closed. This allows concrete to leak out, something which is not conducive to achieving a geometrically perfect joint. A huge number of fine particles are washed out. This not only impacts the watertightness of the concrete in the barrier layer, but also affects the quality of the next casting section The fibre concrete shuttering strip prevents fine particles from leaking out and also ensures a homogeneous watertight concrete quality in the area of the joint.



It can accommodate rebar of any diameter.
This makes it the perfect installation aid for steel-bar reinforcements.



#### Benefits

- Perfectly geometric formation of construction joints
- Ensures that the watertight concrete is homogeneous
- Unhindered cross-sectional formation in the second casting section over the entire slab thickness
- Perfect rebar spacing without measurement

Туре	Concrete cover mm	<b>Height/length</b> mm
AS-CV 30/100	30	100
AS-CV 30/150	30	150
AS-CV 30/200	30	200
AS-CV 35/100	35	100
AS-CV 35/150	35	150
AS-CV 35/200	35	200
AS-CV 40/100	40	100
AS-CV 40/150	40	150
AS-CV 40/200	40	200
AS-CV 50/100	50	100
AS-CV 50/150	50	150
AS-CV 50/200	50	200

Please state the diameter of the rebar being used.



## **KUNEX® ABS expansion joints**

Shuttering element for interior expansion joint tapes

#### The produc

Two-part shuttering element for the easy installation of interior KUNEX® expansion joint tapes in watertight reinforced concrete constructions with a joint width of 20 mm. KUNEX® shuttering elements for expansion joints are available in many different heights and are suitable as standard for floor slabs up to 500 mm thick.

#### Area of application

KUNEX® ABS D is used in any application where the plans must take expansion joints caused by deformation into consideration, such as floor slabs in terraced houses. KUNEX® ABS D elements are used especially for watertight reinforced concrete components that have high requirements for both impermeability and deformability.



#### Benefits

- Reliably seals straight expansion joints in floor slabs
- Two-part cage for quick joint tape installation
- Distance to reinforcement in line with DIN

KUNEX® | ABS expansion joints
PohlCon | H-BAU Technik

### **Technical information**



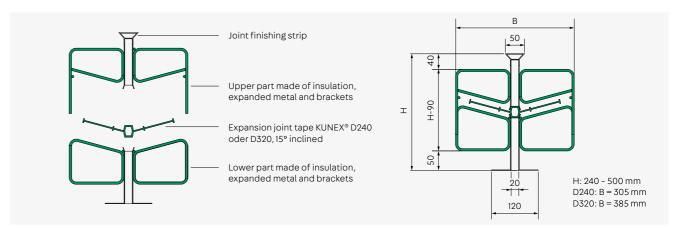
#### **Basic information**

- Self-supporting, two-part element for shuttering and sealing straight expansion joints in floor slabs and ceilings
- Top and bottom parts consisting of expanded metal, steel stirrups and insulation (EPP)
- PVC-U joint end strip
- Standard length of shuttering element: L = 2.4 m
- Special lengths available on request
- Possible slab thicknesses
   H = 240 500 mm

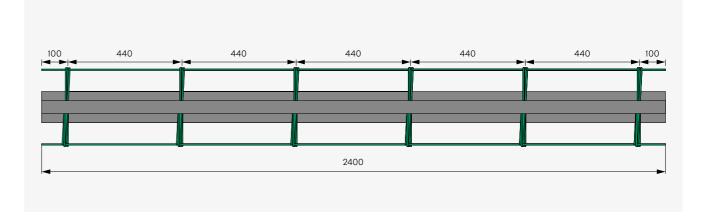
#### Accessories

• KUNEX® D240 or D320 expansion joint tape

#### System cross section

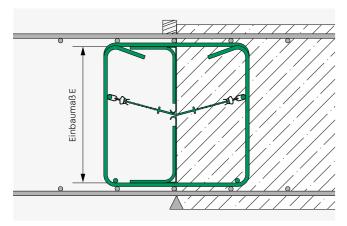


#### Top view



### **Example orders**

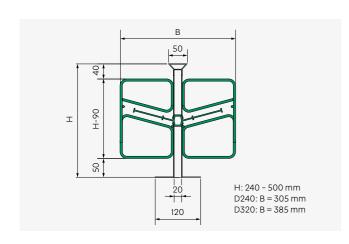
### KUNEX® ABS for construction joints



### Example order for floor slab thickness 30 cm, interlocking joint in line with EC 2:

KUNEX® ABS A-V with KUNEX® A240 DIN BV	Type ABS Type KUNEX
E = 220 mm	E dimension
Total joint length L = 12 m	Joint length
12 A-CV 30 shuttering strips	Shuttering strip as required

### KUNEX® ABS for expansion joints



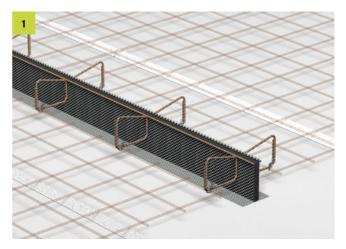
#### Example order for floor slab thickness 30 cm:

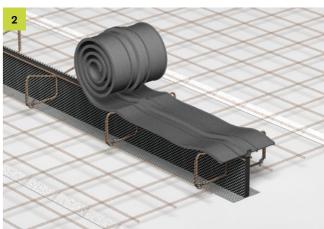
KUNEX® ABS D	Type ABS
with KUNEX® D240 DIN NB	Type KUNEX
Order size H = 300 mm	Height=order size
Total joint length L = 4.8 m	Joint length

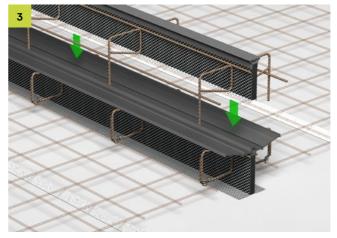
Order size H	240	250	260	270	280	290	300	310	320	330	340	350	360	370
H-90	150	160	170	180	190	200	210	220	230	240	250	260	270	280
B (KUNEX D240)	305	305	305	305	305	305	305	305	305	305	305	305	305	305
B (KUNEX D320)	385	385	385	385	385	385	385	385	385	385	385	385	385	385
Order size H	380	390	400	410	420	430	440	450	460	470	480	490	500	
H-90	290	300	310	320	330	340	350	360	370	380	390	400	410	
B (KUNEX D240)	305	305	305	305	305	305	305	305	305	305	305	305	305	
B (KUNEX D320)	385	385	385	385	385	385	385	385	385	385	385	385	385	

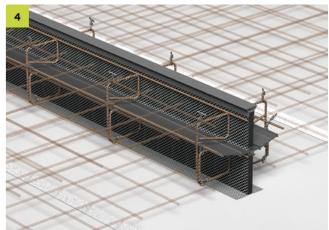
### **Installation instructions**

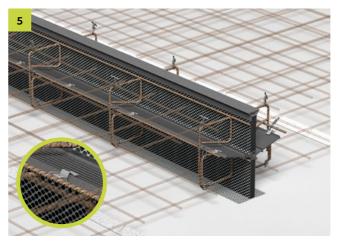
Floor/floor and ceiling/ceiling

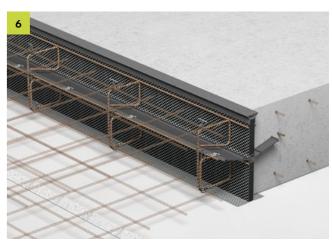


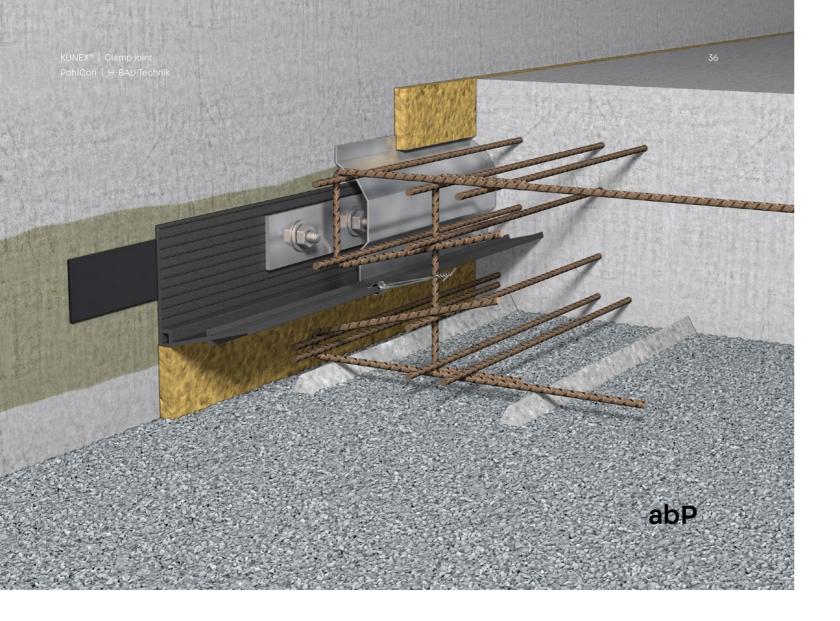












## **KUNEX®** Clamp joint

Connections between new and existing components

#### The produc

KUNEX® clamp joints are the ideal solution to the complex problems posed by joining a new building to an old building. The system consists of primer, joint tapes according to DIN 18541-2, steel profiles, anchors and a crepe rubber strip. The clamp joint works by pressing the joint tape onto the existing stock using clamp profiles and integrating the joint tape into the newly cast concrete components.

#### Application

The KUNEX® clamp joint is used to create watertight movement joints in building connections. The movement joint can be up to 30 mm wide and the resulting deformation (vr) can be up to 20 mm. The system is suitable for zones subject to repeated wet and dry cycles and meets the requirements of usage class

A for stress classes 1 and 2 in accordance with the German watertight concrete guideline.

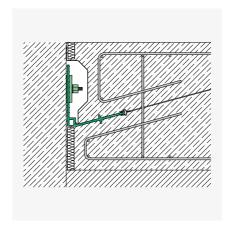


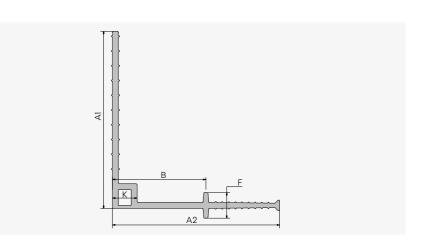
#### Benefits

- With German building code test certificate (abP)
- Tested system solution with German building code test certificate (abP)\*
- Components from a single source
- Joint tapes with excellent welding properties
- Special custom solutions

### KUNEX® interior clamp joint tape

Technical data

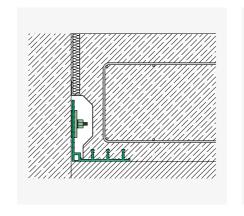


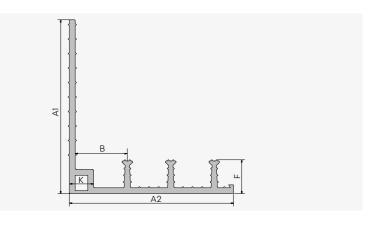


Type	<b>A1/A2</b> mm	<b>K</b>	<b>F</b>	<b>B</b>
DIN 18541-2		mm	mm	mm
D 180/170K DIN	180/170	20	26	95

### KUNEX® exterior clamp joint tape

Technical data





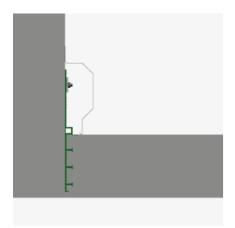
Type	A1/A2	<b>K</b>	<b>F</b>	<b>B</b>	No. of stop
DIN 18541-2	mm	mm	mm	mm	anchors
DA 180/170K DIN	180/170	20	35	60	3

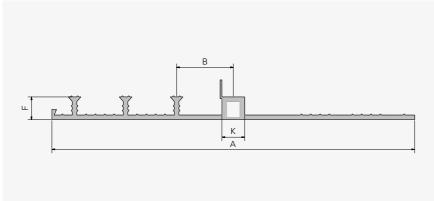
 $<sup>{}^{\</sup>star}\text{Tested up to 2.5 bar; 0.5 bar permitted in accordance with the German building code test certificate (abP) (safety factor of 5.0).}$ 

KUNEX® | Clamp joint | Exterior clamp joint tape PohlCon | H-BAU Technik KUNEX® | Clamp joint | Installation instructions
PohlCon | H-BAU Technik

### KUNEX® exterior clamp joint tape

#### Technical data



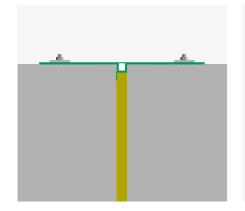


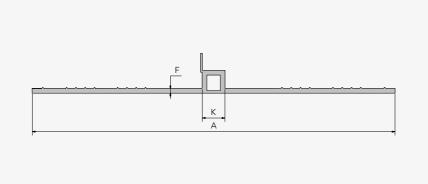
Type	<b>A</b>	<b>K</b>	<b>F</b>	<b>B</b>	Number of stop anchors
DIN 18541-2	mm	mm	mm	mm	
DA 320 KE DIN	320	20	20	50	3

KUNEX® PVC-P clamp joint tape for sealing joints between new concrete components and existing buildings.

### KUNEX® exterior clamp joint tape

#### Technical data





Type	<b>A</b>	<b>K</b>	<b>F</b>
DIN 18541-2	mm	mm	mm
DA 320 KB DIN	320	20	4

KUNEX® PVC-P clamp joint tape for sealing joints between two existing components.

### **Installation instructions**

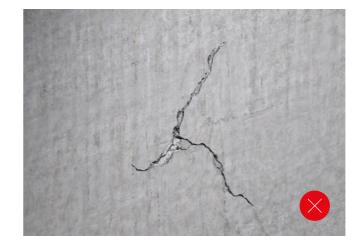
#### Installation notes

The surface of the existing building must be in the following condition:

- ≥ 25 cm wide
- Clean, smooth, level and free from ripples and recesses
- Free from cavities, cracks and loose parts
- Watertight
- Load-bearing, surface tensile strength min. 1.5 N/mm², concrete quality ≥ C25/30 (previously: B25 watertight)







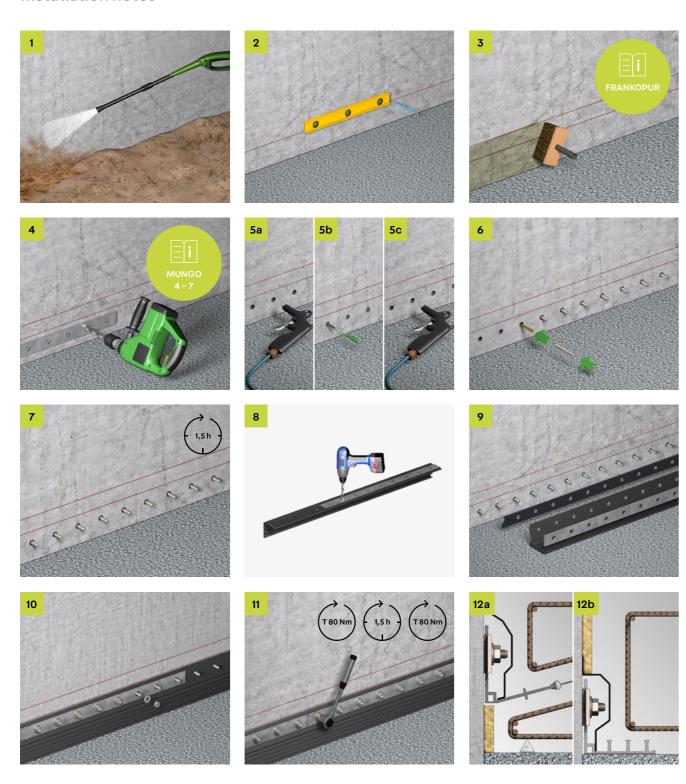


 KUNEX® | Clamp joint | Installation instructions
 40
 KUNEX® | Clamp joint | Accessories

 PohlCon | H-BAU Technik
 PohlCon | H-BAU Technik

### **Installation instructions**

#### Installation notes



### **Accessories**

### KUNEX® Clamp joint



**Primer**For preparing the concrete surface.\*



Shear connector
Type: M12, M16\*, M20.
For bonding the anchor rod in place.



Anchor rod
Type: M12/160, M16/190\*,
M20/230. Galvanised or V4A
with nut and U washer.



Concrete bolt
Type: TSM 14M16\* galvanised
or TSM10M12\* V4A with nut
and U washer. Alternative
fastening option to the shear
connector system.



Crepe rubber strip
Type: 80×4\*,100×4\*.
For sealing the building connection joint.



Clamping rail
Type: 80×8\* (16/30, 20/30\*),
100×10 (24/38). Slotted every
150 mm, galvanised (L=1450 mm) or V4A (L=1300 mm).



Outer corner Special profile 80×10×200 mm. Galvanised or V4A.

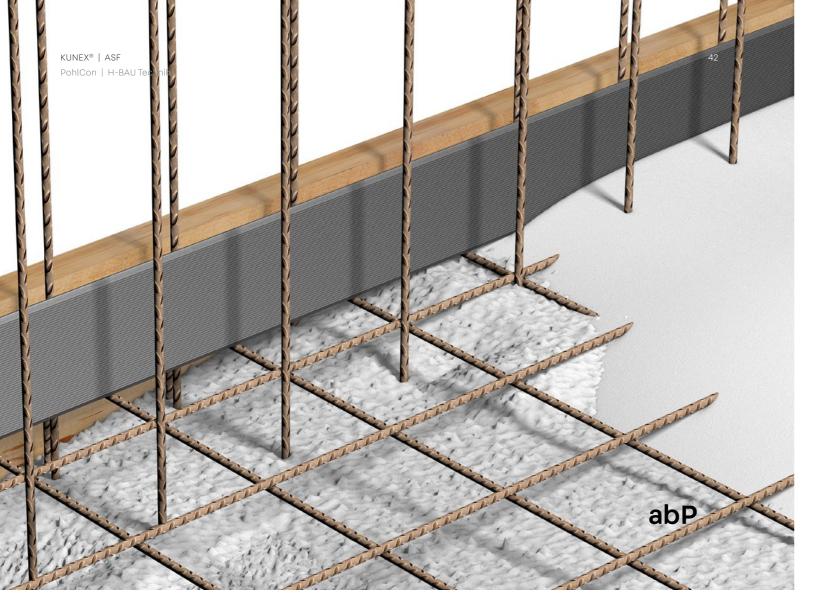


Inner corner
Special profile 80×10×100 mm.
Galvanised or V4A.



Clamping protection profile Made of galvanised sheet metal, comes with knock-in anchors. Ensures the joint can move and protects the structure.

 $<sup>^*</sup>$ If you are creating a KUNEX® clamp joint in accordance with the German building code test certificate P-5316/053/14 MPA-BS, the components followed by an asterisk must be used.



### **KUNEX® ASF**

For construction joints subject to minor loads

#### The product

KUNEX® ASF thermoplastic joint tapes are used to seal construction joints that are subject to minor loads. The special profile design means they achieve an excellent sealing effect with an anchoring depth of just 30 mm.

#### Application

KUNEX® joint tapes are used as interior joint seals for forming watertight construction joints. The system is suitable for use in zones subject to repeated wet and dry cycles and meets the requirements of usage class A for stress classes 1 and 2 in accordance with the German watertight concrete guideline.

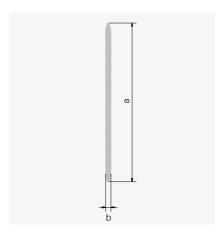


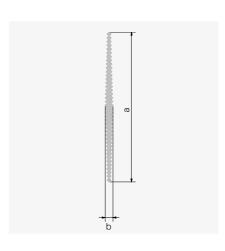
#### enefits

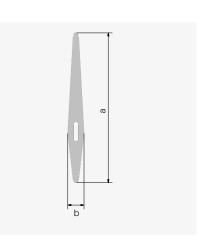
- With German building code test certificate (abP)
- Anchoring depth of only 30 mm
- Joint tapes with excellent welding properties

KUNEX® | ASF | Technical information
PohlCon | H-BAU Technik

### **Technical information**







**Type ASF 80/5** a = 80 mm, b = 5 mm **Type ASF 100/5** a = 100 mm, b = 5 mm

Type ASF 120/4 a = 120 mm, b = 4 mm Type ASF 120/6 a = 120 mm, b = 6 mm Type ASF 150/5\* a = 150 mm, b = 5 mm

**Type ASF 120/8** a = 120 mm, b = 8 mm

Type ASF 120/12 a = 120 mm, b = 12 mm

#### Material parameters

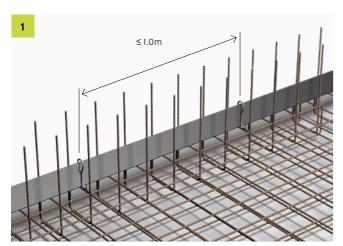
Properties	PVC-P factory standard
Tensile strength in line with DIN EN ISO 527	≥ 8 N / mm²
Elongation at break in line with DIN EN ISO 527	≥ 150%
Hardness according to Shore A DIN 53505	≥89±7
Reaction to fire in line with DIN EN 13501	Normal flammability (building material class E)
Temperature resistance	-20 to +60°C

KUNEX® | ASF | Installation instructions

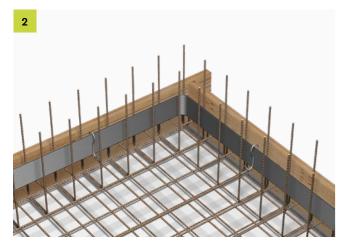
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PohlCon | H-BAU Technik

### **Installation instructions**



- Check the joint tapes for damage or deformation before use
- The ASF joint tape must be free from contamination and ice
- Unroll the joint tape and lay it on the top layer of reinforcement without exerting any tension
- The tape is usually installed in the middle of the construction joint
- Butt joints are connected by butt joint welding
- It must be prevented from shifting or floating upwards while pouring the concrete
- The joint tape must be embedded without any voids
- The anchoring depth is ≥ 30 mm

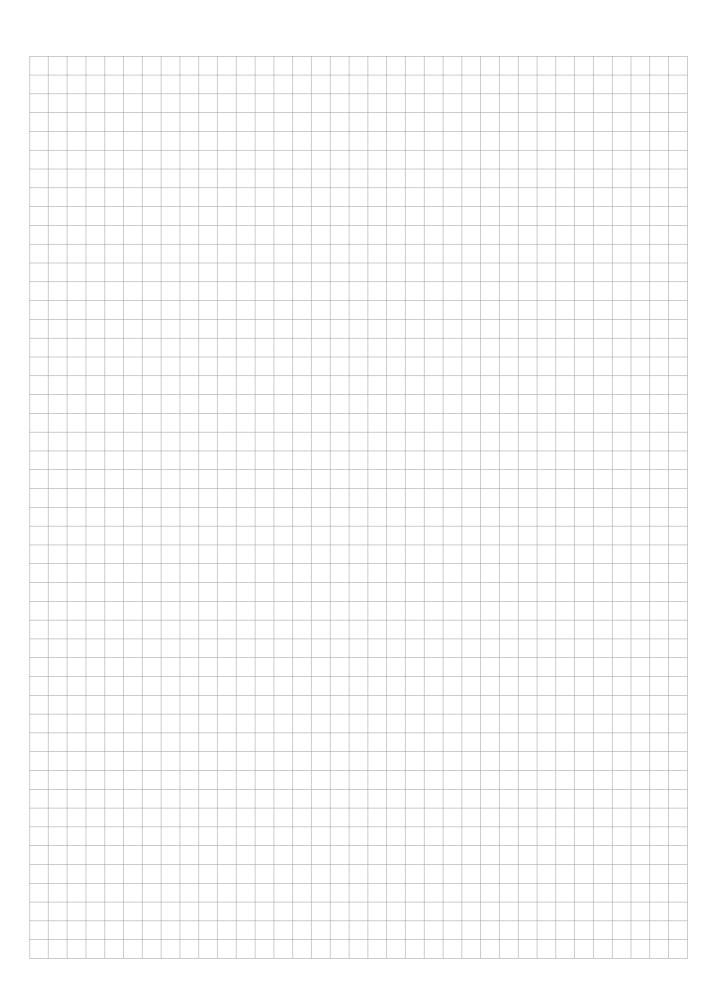


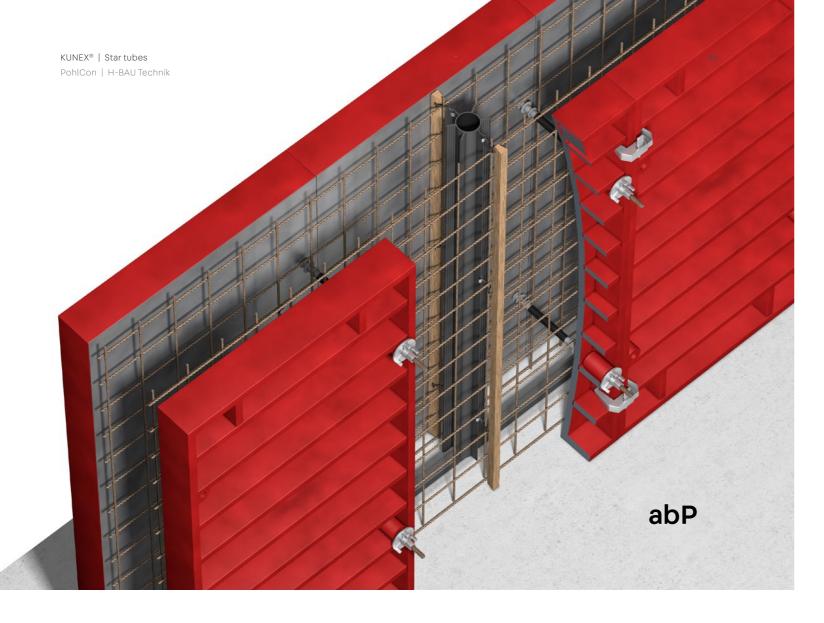
- Corners are formed with a ≥ 150 mm bending radius
- It must be prevented from shifting or floating upwards while pouring the concrete



Our Application Technology department will be happy to assist you with further solutions.

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### **KUNEX®** star tubes

For sealing crack control joints in concrete

#### The product

KUNEX® thermoplastic (PVC-P) star tubes are used to seal dummy joints and crack control joints in concrete. Star tubes consist of a soft PVC casing with four stop anchors and two crack-formation lips. The casing is stabilised by a hard PVC interior tube. The two crack-formation lips are used to form the crack at a predetermined point. The crack is simultaneously sealed again by the four stop anchors.

#### Application

KUNEX® star tubes are used as interior seals for forming dummy joints and crack control joints. The system is suitable for zones subject to repeated wet and dry cycles and meets the requirements of usage class A for stress classes 1 and 2 in accordance with the German watertight concrete guideline.



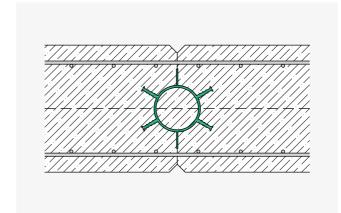
#### enefits

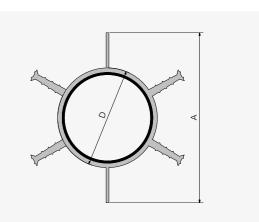
- With German building code test certificate (abP)\*
- PVC-P raw material
- PVC-U interior tube for stabilisation
- Star tubes also available with cutouts and eyelets
- For use with KUNEX® joint tapes and PENTAFLEX KB® seam sheets in line with German building code test certificate (abP)

KUNEX® | Startubes | Technical information

PohlCon | H-BAU Technik

### **Technical information**



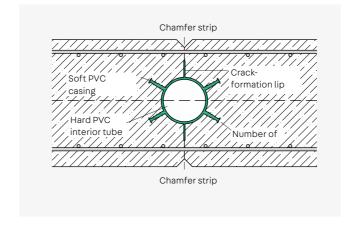


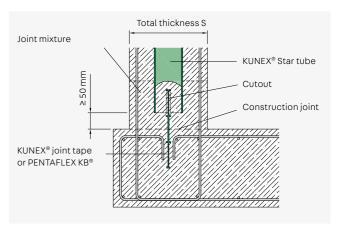
Туре	<b>D</b> mm	<b>A</b> mm	For wall thickness mm	<b>Standard lengths</b> m
Q60	60	100	≤ 240	2.50; 3.00; 4.00
Q88	88	150	≤ 350	2.50; 3.00; 4.00
Q175	175	235	> 350-500	2.50; 3.00; 4.00

 $Upon \, request, start ubes \, can \, be \, delivered \, with \, a \, cutout \, for \, attachment \, to \, the \, joint \, seal \, and/or \, with \, fastening \, eyelets \, on \, both \, sides \, (O2).$ 

The eyelets are spaced 200 mm apart. The following applies to selecting the appropriate star tube for element walls: In-situ concrete core = wall thickness Other lengths available on request.

#### System cross section





Top view of wall/wall star tube

Connection between star tube and joint seal

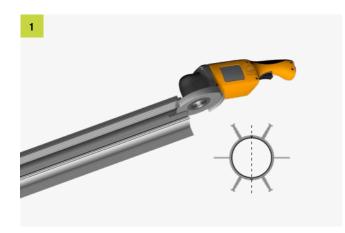
 $<sup>^{\</sup>star}$ Tested up to 5.0 bar; 2.0 bar permitted in accordance with the German building code test certificate (abP) (safety factor of 2.5).

KUNEX® | Start tubes | Installation instructions

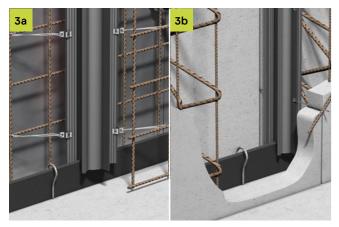
PohlCon | H-BAU Technik

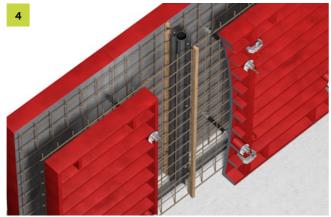
PohlCon | H-BAU Technik

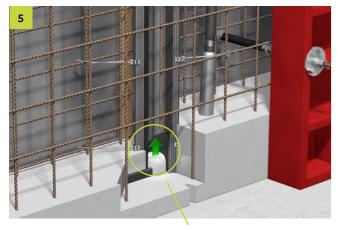
### **Installation instructions**

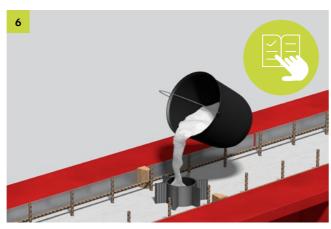










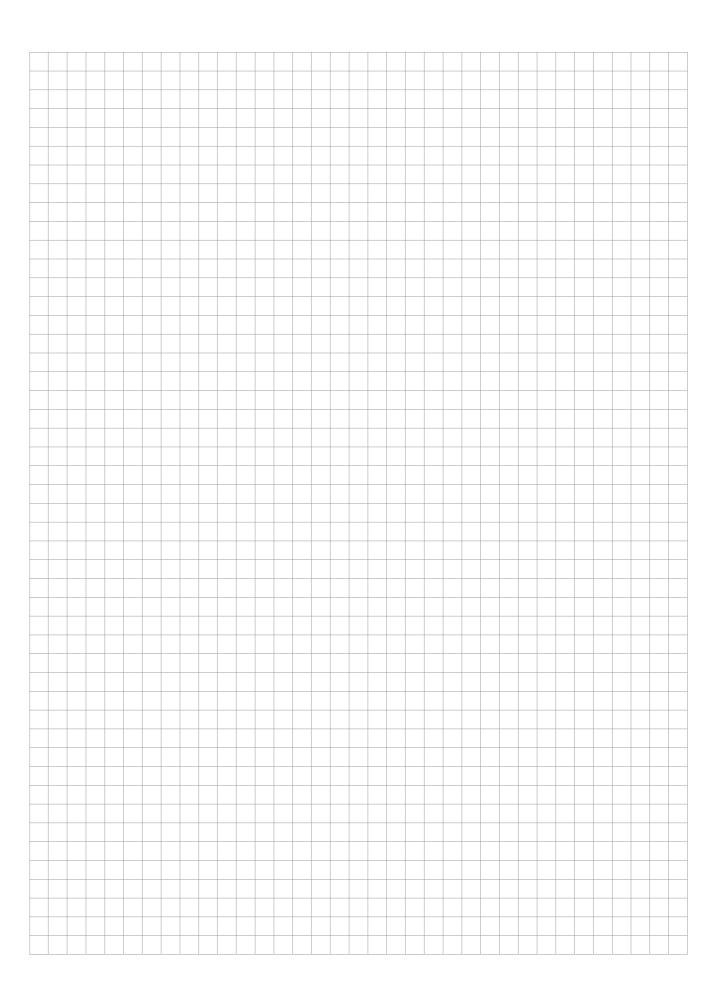






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## KUNEX® puddle flange

For sealing pipelines and earthing strips

#### The produc

The KUNEX® MK puddle flange is used to seal pipelines that are laid through watertight concrete components. This high-quality puddle flange is made of TPE, is tested to ensure tightness against water pressure up to 5.0 bar (50 m hydrostatic head) and is resistant to a variety of chemical substances. Types EF and ER are used to seal flat and round earthing strips.

#### Application

The fact that the system is easy to install and use with all common pipe materials and diameters makes it a flexible, safe and cost-effective solution. All that is needed on the construction site is a smooth, clean and damage-free surface for the underground pipe or earthing strip. The system comes ready to install with all the required materials.



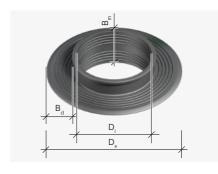
#### Benefits

- Easy to assemble and use
- Material: Black TPE
- Tested for watertightness up to 5.0 bar water pressure (does not apply to the types EF/ER)

KUNEX® | Puddle flange | MK
PohlCon | H-BAU Technik

### **KUNEX® MK**

#### Technical data



Туре	Outer pipe diameter mm	<b>D</b> <sub>i</sub> mm	<b>D</b> <sub>a</sub> mm	Sleeve width $B_m mm$	<b>Sealing ring</b> B <sub>d</sub> mm
MK 40	38 - 42	38.50	134.00	57	40
MK 50	48 - 53	48.50	144.80	57	40
MK 63	60 - 64	62.30	157.20	57	40
MK 75	71 - 80	73.80	169.50	57	40
MK 90	84 - 92	87.20	183.70	57	40
MK 110	105 - 116	108.4	203.5	57	40
MK 125	120 - 130	123.3	219.2	57	40
MK 160	154 - 166	157.7	253.1	57	40
MK 200	195 - 210	199.8	290.4	57	40

KUNEX® | Puddle flange | MK EF/ER52KUNEX® | Puddle flange | Installation instructionsPohlCon | H-BAU TechnikPohlCon | H-BAU Technik

### KUNEX® MK EF/ER

#### Technical data





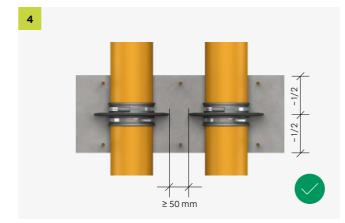
Туре	Outer pipe diameter mm	<b>D</b> <sub>i</sub> mm	<b>D</b> <sub>a</sub> mm	Sleeve width b <sub>m</sub> mm	<b>Sealing ring</b> b <sub>d</sub> mm
MK EF	30 × 3 - 3.5	30.5 × 6.0 mm	120.80	39.80	40
MK ER	8 - 10	9.50	106.20	39	40

### **Installation instructions**









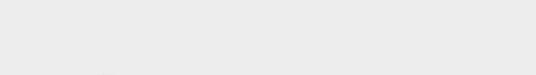


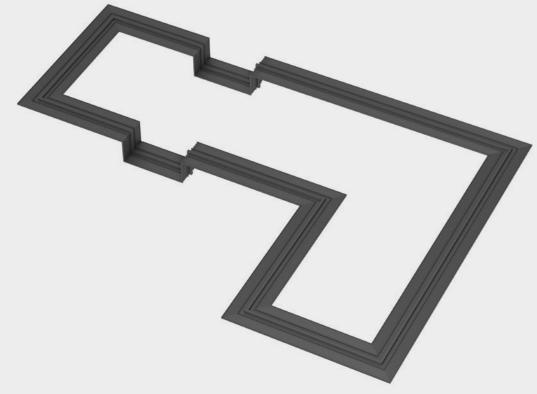


Our Application Technology department will be happy to assist you with further solutions.

T +49 7742 9215-300 technik@h-bau.de KUNEX® | Formed parts and accessories

KUNEX® | Formed parts and accessories | Standard formed parts PohlCon | H-BAU Technik





# KUNEX® formed parts and accessories

Joint tape systems with corners, crossovers and T shapes

KUNEX® joint tapes and formed parts are used to create closed joint tape systems for sealing watertight concrete structures. These are prefabricated in the factory in sections of up to 25 m so that only a few minor butt joint welds need to be made on the building site.

#### **Application**

KUNEX® formed parts are used as interior or exterior joint seals for forming watertight construction or movement joints. The systems are suitable for zones subject to repeated wet and dry cycles and meet the requirements of usage class A for stress classes 1 and 2 in accordance with the German watertight concrete guideline. KUNEX® accessories are used when handling joint tapes on construction sites.



#### Benefit

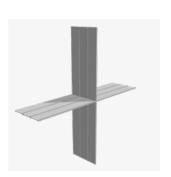
- Factory-welded connections
- Standard formed parts
- Welded structures in accordance with customer requirements
- Welding training courses
- Welding equipment for the building site

### **Standard formed parts**







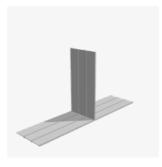


Form 1 Flat crossover

Form 2 Flat T

Form 3 Flat corner

Form 4
Vertical crossover









Form 5 Vertical T

Form 6 Vertical corner

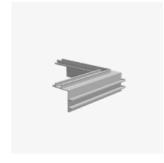
Form 7 Vertical crossover

Form 8 Vertical T









Form 9 Vertical corner

Form 10 Flat corner

Form 11 Mirrored corner

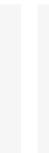
Form 12
Double-angled corner

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5

### Standard formed parts







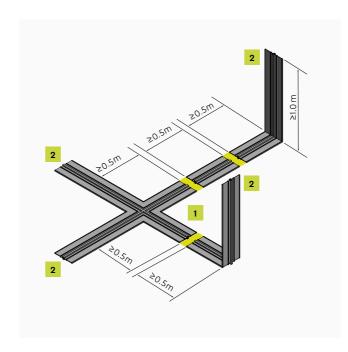


Form 13
Joint tape lock

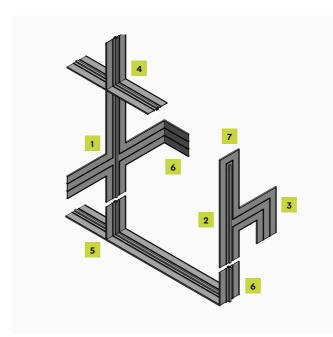
Form 14
Joint tape closure

Form 15 Butt joint

### Joint tape designs



- 1 First casting section
- Free joint tape end
- Joint on building site



- 1 Flat crossover
- Flat T
- Flat corner
- 4 Vertical crossover
- 5 Vertical T
- 6 Vertical corner
- 7 Joint tape lock

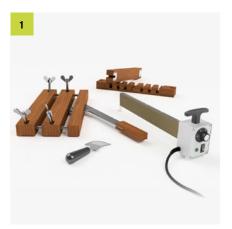
Alongside standard formed parts made of construction joint tapes, expansion joint tapes or joint end tapes, we also produce joint tape designs in accordance with customer requests.



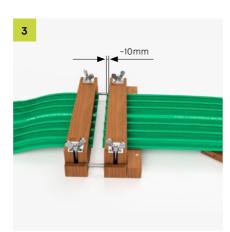
Our Application Technology department will be happy to assist you with further solutions.

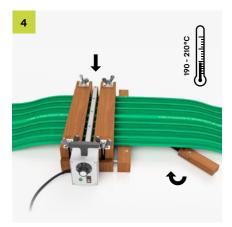
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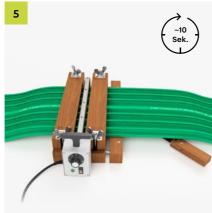
### Butt joint welding on the building site

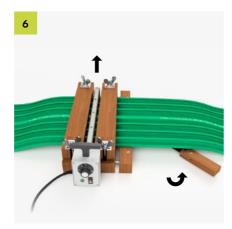


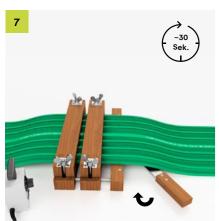


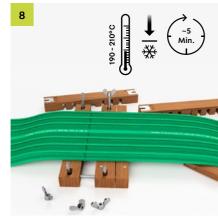
















Joints on building sites must only be created by qualified personnel. Visit www.h-bau.de for more information regarding qualifications

### **Accessories**







Template
Type: A-D 190, 240, 320.
Type: AA-DA 190, 240, 320.
Used to guide the KUNEX® joint tapes when cutting and welding.



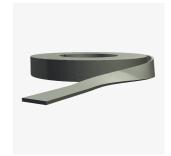
Welding plate
Type: SSP 400.
For joining thermoplastic joint tapes.



Joint tape knife
For cutting joint tapes.



Spark tester 230 V, 50/60Hz. Test voltage: Adjustable from 10 - 55 kV, flexible rod electrode, 150 mm long.



Welding tape
Type: 25/3 or 30/2 - also
available in BV quality class.
For reinforcing joint tape
welds.



Hot air gun Hot air welder, 1600 watts / 230 V.



**Tubular nozzle**Dia. 5 mm as accessory for hot air gun.



Wide slot nozzle 20 mm wide as accessory for hot air gun.



Joint tape clip
For fastening joint
tapes in place.
Consumption: 4 units per
running metre and side.



Joint tape connector
The FBV joint tape connector
in a clamping device for
connecting construction
joint tapes.
Type: FBV 100, 150, 190, 240, 320



Joint tape connection
The joint tape connection
FBA is a clamping device for connecting PENTAFLEX®
elements with joint tapes of all kinds.

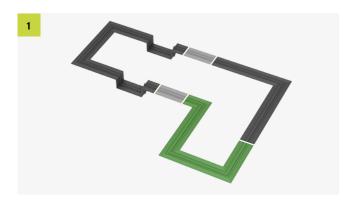
KUNEX® | Formed parts and accessories | General information PohlCon | H-BAU Technik

### **General information**

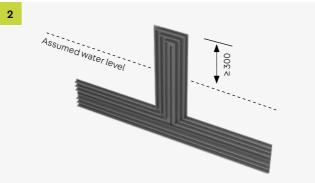
#### Guidelines

The most suitable joint tape must be determined on the basis of the anticipated loads. Ensure that the tape is properly applied to the structure.

- Joints should be as straight as possible, clearly visible and without any differences in elevation
- Any changes necessary in the direction of the joint profile should run at right angles where possible
- · Concise drawings of the joint tapes, the joint profile, connections and crossovers are required



Joint tapes must create a closed sealing system



water level and sealed at the ends with a joint tape lock

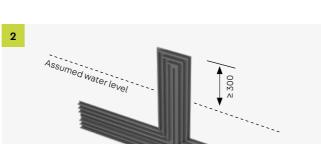
#### Selecting a joint tape

Joint tapes should be selected depending on the following conditions:

- Type of joint: Construction joint or movement joint
- Interior or exterior sealing level
- Compatible with bitumen (BV) or not compatible
- Joint tape width depending on the assumed water level, thickness of the component and, if applicable, the resulting deformation of the joint
- Joint tape in line with DIN or factory standard (German building code test certificate (abP))

#### Regulations

- DIN 18197 Planning, design, handling, processing and installation of joint tapes
- DIN 18541-1 Shape, dimensions and markings of PVC-P joint tapes in accordance with DIN
- DIN 18541-2 Material properties of PVC-P joint tapes in accordance with DIN
- German building code test certificate (abP) Shape, dimensions, markings and material properties of PVC-P joint tapes in accordance with factory standard
- DAfStb guideline on watertight concrete structures (Wasserundurchlässige Bauwerke aus Beton) - general regulations dealing with watertight concrete structures



Joint tapes should be laid at least 300 mm above the assumed

### Determining the correct joint tape

#### Assumed water level

The highest ground/artesian water level or flood level to be expected during the planned duration of use taking into account many years of observations and expected future conditions: the highest assumed water level. (Source: German watertight concrete guideline)

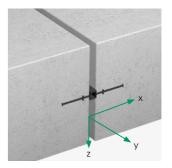
#### Joint type

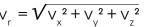
The type of joint tape is determined on the basis of the

- · Construction joint Interior or exterior construction joint tape
- Movement joint Interior or exterior expansion joint tape
- Joint end tape for sealing the surface of the joint at the same time

#### **Deformation stress**

The deformation in movement joints affects the maximum water pressure that the joint tapes can withstand. The resulting deformation can be determined as follows:





 $v_{i}$  = resulting deformation

 $v_y = deformation in x axis$ 

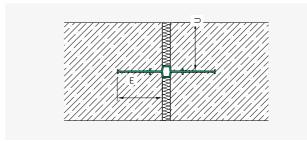
 $v_{v}$  = deformation in y axis

 $v_{z}$  = deformation in z axis

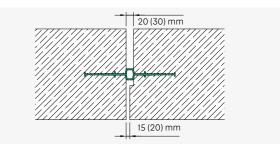
Calculation example on p. 67

Joint type	Usage	Туре
Construction joints	No planned deformation	A, AA
Movement joints	v <sub>r</sub> ≤ 30 mm	D, DA, FA
	v <sub>r</sub> ≤ 35 mm	DA, FA
	v <sub>r</sub> ≤ 40 mm	FA
Compression joints	No shear deformation	D, DA

#### Joint tape width and compression limit



Interior joint tapes should roughly correspond to the component thickness and be positioned centrally in the component. The anchoring depth (E) must not exceed the cover (U).



Stepped joints prevent the expansion chamber in joint tapes from being compressed when the joint undergoes extreme deformation.

### **Construction notes**

#### Nominal joint width

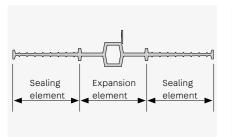
This table shows the following maximum permitted joint widths for standard joint

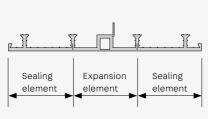
Special joint tapes are also available in coordination with our Application Technology department.

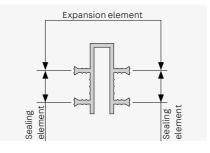
Joint tape	Туре	Joint width
·····	D	20 - 30 mm
	FA	20 - 30 mm
	DA	20 mm

#### **Functional areas**

In terms of function, joint tapes are divided into sealing elements and expansion elements.



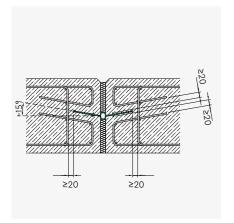




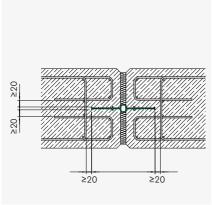
62

#### Edge clearances

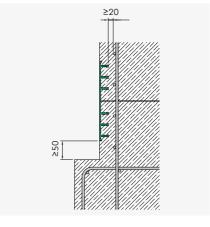
- Distance from edge to static reinforcement ≥ 20 mm
- Distance from edge to grooves and borders ≥ 50 mm



Interior expansion joint tape in a floor slab bent at an angle of 15° - distance to static reinforcement.



Interior expansion joint tape in a wall distance to static reinforcement.

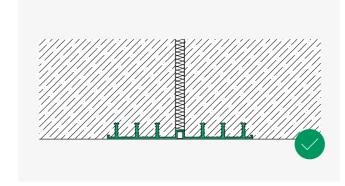


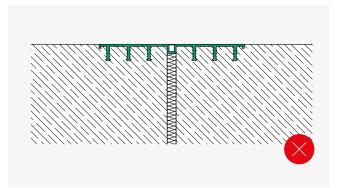
Exterior construction joint tape in a wall - distance to offset ≥ 50 mm.

### **Construction notes**

H2 hier entfernen?

#### Arrangement of exterior joint tapes





In general, exterior joint tapes should be placed on the positive side of the component (facing the water under pressure). In floor/floor joints, exterior joint tapes must always be positioned on the underside.

Casting concrete below the tape is not permitted.

#### Changing the direction of the joint

As a rule, corners should be created by using formed parts (see p. 56). Alternatively, they can be formed by

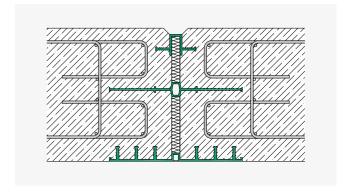
bending the joint tape, but always observing the following bending radii.

#### Joint tape type Bending radius

Interior	Construction joint tapes (type A)	<b>├</b>	≥ 15 cm
Interior	Expansion joint tapes (type D)	·····	≥ 25 cm
Exterior	Construction joint tapes (type AA)		≥ 50 x stop anchor height
Exterior	Expansion joint tapes (type DA)		≥ 50 x stop anchor height
Joint end tapes	Joint closing tapes (type FA)		≥ 30 x stop anchor height (bend around the x axis)
Joint end tapes	Joint closing tapes (type FA)		≥ 30 x profile width (bend around the y axis)

#### Protecting the joint

Joint filler plates are used to protect the movement joint and the joint tape centre hose during casting. The joint is protected against contamination by the joint end tape.



## Joint tape selection

In line with DIN 18197

### Interior expansion joint tapes

<b>p</b> bar	<b>p</b> m							<b>v</b> <sub>r</sub> mm
		0	5	10	15	20	25	30
0.000	0.00	D240 DIN	D320 DIN	D500 DIN				
0.100	1.00	D240 DIN	D240 DIN	D240 DIN	D240 DIN	D320 DIN	D500 DIN	
0.200	2.00	D240 DIN	D240 DIN	D240 DIN	D240 DIN	D320 DIN	D500 DIN	
0.300	3.00	D240 DIN	D240 DIN	D240 DIN	D320 DIN	D320 DIN	D500 DIN	
0.400	4.00	D320 DIN	D500 DIN					
0.500	5.00	D320 DIN						
0.600	6.00	D320 DIN	D320 DIN	D320 DIN	D320 DIN	D500 DIN		
0.700	7.00	D320 DIN	D320 DIN	D320 DIN	D320 DIN	D500 DIN		
0.800	8.00	D320 DIN	D320 DIN	D320 DIN	D320 DIN	D500 DIN		
0.900	9.00	D320 DIN	D320 DIN	D320 DIN	D320 DIN			
1.000	10.00	D320 DIN	D320 DIN	D320 DIN	D320 DIN			
1.100	11.00	D500 DIN	D500 DIN	D500 DIN	D500 DIN			
1.200	12.00	D500 DIN	D500 DIN	D500 DIN	D500 DIN			

V<sub>r</sub> = resulting deformation, P = water pressure

## Joint tape selection

H1 und H3 hier entfernen?

In line with DIN 18197

### Interior construction joint tapes

<b>p</b> m	$\mathbf{v_r}$ mm
	0
5.40	A240 DIN
18.00	A320 DIN
21.60	A500 DIN
	5.40 18.00

V = resulting deformation, P = water pressure

#### **Example of dimensions D320 DIN**

#### Requirements

• 300 mm component thickness

• 20 mm interior expansion joint

4 m standing water

• 8 mm deformation in x direction

1 mm deformation in Y direction5 mm deformation in z direction

#### Calculation

$$V_{r} = \sqrt{V_{x}^{2} + V_{y}^{2} + V_{z}^{2}}$$
$$= \sqrt{8^{2} + 1^{2} + 5^{2}}$$

= 10 mm

### Calculate for the selection diagrams:

- Interior joint tapes: joint tape width < component thickness (exception: 320 mm joint tape width with 300 mm component thickness)
- $v_r = 10 \text{ mm boundary condition}$
- v<sub>r</sub> ≤ 30 mm for interior expansion joint tapes

Condition met ✓

KUNEX® | Joint tape selection | In line with DIN 18197
PohlCon | H-BAU Technik

KUNEX® | Joint tape selection | In line with DIN 18197 PohlCon | H-BAU Technik

## Joint tape selection

H1 und H3 hier entfernen?

In line with DIN 18197

### Exterior construction and expansion joint tapes

<b>p</b> bar	<b>p</b> m						<b>v</b> <sub>r</sub> mm
		0	0	5	10	15	20
0.000	0.00	AA240/20 DIN	DA240/20 DIN				
0.100	1.00	AA240/35 DIN	DA240/35 DIN				
0.200	2.00	AA240/35 DIN	DA240/35 DIN				
0.300	3.00	AA320/25 DIN	DA320/25 DIN				
0.400	4.00	AA320/35 DIN	DA320/35 DIN				
0.500	5.00	AA320/35 DIN	DA320/35 DIN				
0.600	6.00	AA320/35 DIN	DA320/35 DIN				
0.700	7.00	AA320/35 DIN	DA320/35 DIN				
0.800	8.00	AA500/35 DIN	DA500/35 DIN				
0.900	9.00	AA500/35 DIN	DA500/35 DIN				
1.000	10.00	AA500/35 DIN	DA500/35 DIN				

V<sub>r</sub> = resulting deformation, P = water pressure | Continued on next page

## Joint tape selection

H1 und H3 hier entfernen?

In line with DIN 18197

### Exterior construction and expansion joint tapes

<b>p</b> bar	<b>p</b> m			<b>v</b> <sub>r</sub> mm
		25	30	35
0.000	0.00	DA240/35 DIN	DA320/35 DIN	DA500/35 DIN
0.100	1.00	DA320/25 DIN	DA500/35 DIN	
0.200	2.00	DA320/35 DIN	DA500/35 DIN	
0.300	3.00	DA320/35 DIN	DA500/35 DIN	
0.400	4.00	DA500/35 DIN		
0.500	5.00	DA500/35 DIN		
0.600	6.00	DA500/35 DIN		

 $V_r = resulting deformation, P = water pressure$ 

## Joint tape selection

In line with DIN 18197

### Joint end tapes

<b>p</b> bar	<b>p</b> m						<b>V</b> <sub>r</sub> mm
		0	5	10	15	20	25/30/35/40
0.000	0.00	FA70/40 DIN					
0.100	1.00	FA90/20 DIN					
0.200	2.00	FA130/20 DIN					
0.300	3.00	FA130/20 DIN					

 $V_r = resulting deformation, P = water pressure$ 

## Joint tape selection

In line with factory standard

### Interior expansion joint tapes

<b>p</b> bar	<b>p</b> m							<b>v</b> <sub>r</sub> mm
		0	5	10	15	20	25	30
0.000	0.00	D150	D150	D150	D190	D240	D320	D500
0.010	0.10	D150	D150	D150	D190	D320	D500	
0.100	1.00	D150	D150	D150	D190	D320	D500	
0.140	1.40	D190	D190	D190	D240	D320	D500	
0.255	2.55	D240	D240	D240	D320	D320	D500	
0.850	8.50	D320	D320	D320	D320			
1.020	10.20	D500	D500	D500	D500			

 $V_r = resulting deformation, P = water pressure$ 

### Interior construction joint tapes

bar	m 	mm
		0
0.010	0.10	A100
0.100	1.00	A150
0.140	1.40	A190
0.459	4.59	A240
1.530	15.30	A320
1.836	18.36	A500

 $V_r$  = resulting deformation, P = water pressure

## Joint tape selection

H1 und H3 hier entfernen?

In line with factory standard

### Exterior construction and expansion joint tapes

<b>p</b> bar	<b>p</b> m									v <sub>r</sub> mm
		0	0	5	10	15	20	25	30	35
0.000	0.00	AA190/17	DA190/17	DA190/17	DA190/17	DA190/17	DA240/20	DA240/35	DA320/35	DA500/35
0.140	1.40	AA190/17	DA190/17	DA240/35	DA240/35	DA240/35	DA240/35	DA320/35	DA500/35	
0.150	1.50	AA240/20	DA240/20	DA240/35	DA240/35	DA240/35	DA240/35	DA320/35	DA500/35	
0.170	1.70	AA240/35	DA240/35	DA240/35	DA240/35	DA240/35	DA240/35	DA320/35	DA500/35	
0.200	2.00	AA320/20	DA320/20	DA320/25	DA320/25	DA320/25	DA320/25	DA320/35	DA500/35	
0.255	2.55	AA320/25	DA320/25	DA320/25	DA320/25	DA320/25	DA320/25	DA320/35	DA500/35	
0.595	5.95	AA320/35	DA320/35	DA320/35	DA320/35	DA320/35	DA320/35			
0.850	8.50	AA500/35	DA500/35	DA500/35	DA500/35	DA500/35	DA500/35			

 $V_r$  = resulting deformation, P = water pressure

## Joint tape selection

H1 und H3 hier entfernen?

In line with factory standard

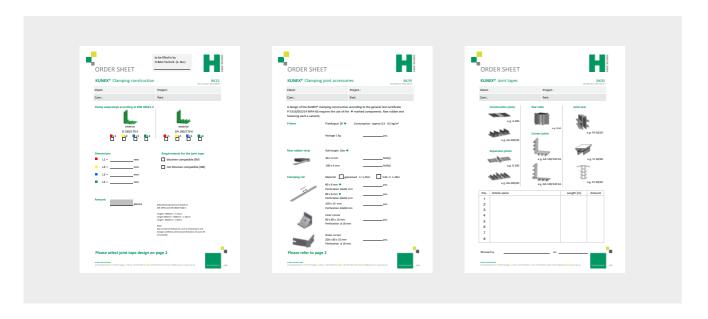
### Joint end tapes

<b>p</b> bar	<b>p</b> m									<b>V</b> <sub>r</sub> mm
		0	5	10	15	20	25	30	35	40
0.000	0.00	FA50/20	FA50/20	FA50/20	FA50/20	FA50/20				
0.000	0.00	FA50/30	FA50/30	FA50/30	FA50/30	FA50/30	FA50/30	FA50/30		
0.000	0.00	FA70/40	FA70/40	FA70/40	FA70/40	FA70/40	FA70/40	FA70/40	FA70/40	FA70/40
0.085	0.85	FA90/20	FA90/20	FA90/20	FA90/20	FA90/20	·			
0.085	0.85	FA95/30	FA95/30	FA95/30	FA95/30	FA95/30				
0.255	2.55	FA130/20	FA130/20	FA130/20	FA130/20	FA130/20				

 $V_r$  = resulting deformation, P = water pressure

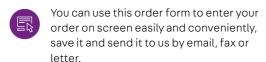
72

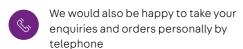
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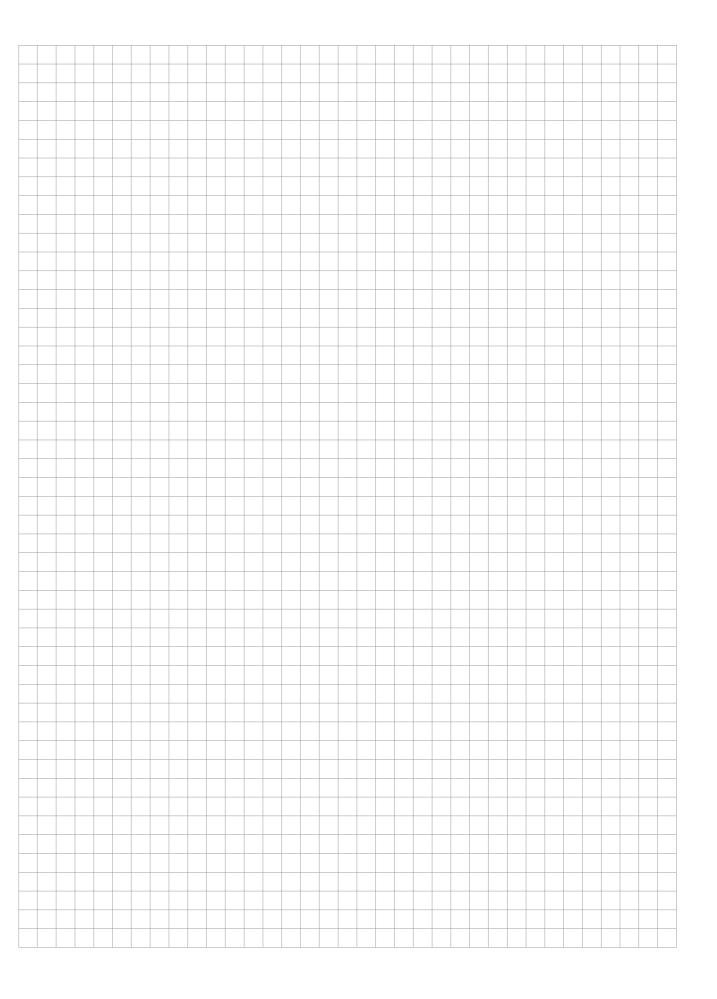
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Service

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With us, you benefit from the collective experience of three established manufacturers, who combine products and expertise in a comprehensive range. That is the PohlCon synergy concept.



#### Full-service consulting

Our extensive network of consultants is available to answer all your questions about our products on site. From planning to use, you can enjoy personal support from our qualified employees.



#### **Digital solutions**

Our digital solutions provide targeted support in planning with our products. From tender texts to CAD details and BIM data, right through to modern software solutions, we offer customized support for your planning process.



#### 7 fields of application

We think in terms of holistic solutions. This is why we have combined our products into seven fields of application, where you can benefit from their synergy and the overall PohlCon product portfolio.



#### 10 product categories

In order to find the right product in our extensive range even faster, we have divided our products into ten product categories. This way you can navigate unerringly between our products.



#### Individual solutions

No series product on the market is suitable for your project? We realize unique construction projects and exceptional challenges with the many years of expertise of the three manufacturing brands.



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