WipoTon

Drainage systems

low weight for easy self-installation • self-cleaning thanks to special form

Product description

The Wipoton drainage channels STANDARD and STANDARD C made of polymer concrete have every advantage in material and form and are as much as 70 – 80 % lighter than comparable concrete channels.

The standards are very well-suited for home, farm, garden and landscape applications and drain them quickly and reliable.

Wipoton drainage channels STANDARD and STANDARD C can easily handle large amounts of water – with Wipoton, you are always on the safe side.

Benefits at a glance

- Low weight for easy do-it-yourself installation
- For private and commercial areas
- Resistant to frost and road salt
- Reliable in use
- Self-cleaning thanks to the special form
- With traffic-safe, permanent locking

Overview of contents

Areas of application

Drainage channel STANDARD without casing

The drainage channel STANDARD, which can be installed quickly and easily, is especially well-suited for home, farm and garden applications for quick and reliable surface drainage.

The lower weight in comparison to concrete, in particular, makes your work child's play. With the special formation of the bed, the self-cleaning effect of the channel is increased and the load-bearing capacity of the channel body is improved.

This results in weight savings and significantly facilitates channel installation work.

The frost-resistant polymer concrete drainage channel is highly resistant to wear. Light web grating made of galvanised steel and cast grating are both available.

Drainage channel STANDARD C with casing

For elevated requirements such as those for large car parks, entrances to company grounds, pedestrian zones or other public areas, the drainage channel STANDARD C was equipped with an additional steel casing not provided with the STANDARD variant. As a result, a load in the load-bearing range of up to 25 t (Class C) is possible.

The channel does not have an inherent slope. Three different installation heights enable installation in a cascade slope.
Beginning and end pieces of the base body are provided with appropriate profiles for the problem-free bonding of bodies.

Grating in the following versions are available in lengths of 50 cm and 100 cm to cover the channels:

- Galvanised web grating
- Galvanised mesh grating (Class B)
- Galvanised double web grating (class C)
- Slotted cast grating (class C)
- Inlet boxes as a transition section for drainage systems are equipped galvanised sludge buckets and removable odour traps

Properties

Easy installation
Low weight of the base element and easy handling make safe installation easier for professionals and builders.

Chemical resistance
High resistance to chemicals also qualifies this channel for demanding industrial operations in the chemical sector.

Various gratings for load of up to 25 t
Bearing capacity of up to 25 tons with channel STANDARD C.

Resistant to frost and road salt
Polymer concrete is water-resistant based on its artificial resin components and thus has proven resistance to frost and road salt.

Drainage channel STANDARD

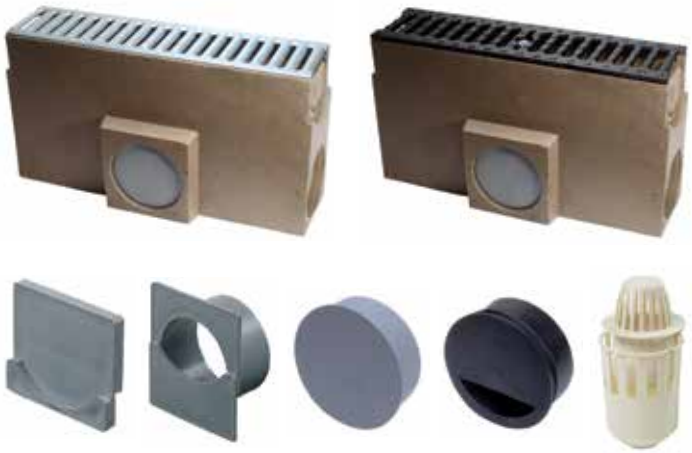
With galvanised web grating

Installation length	Installation width	Installation height	Nominal width
500 mm	125 mm	95 mm	100
1000 mm	125 mm	95 mm	100

With cast grating

Length	Width	Height	Nominal width
500 mm	125 mm	100 mm	100
1000 mm	125 mm	100 mm	100

Accessories STANDARD



Inlet box with galvanised web grating

Installation length	Installation width	Installation height	Nominal width
500 mm	125 mm	275 mm	100

Inlet box with cast grating

Installation length	Installation width	Installation height	Nominal width
500 mm	125 mm	275 mm	100

End wall made of PVC (with or without ports)

Odour trap for inlet boxes made of PVC

Ports for inlet boxes made of PVC

Debris catcher made of PVC, nominal width 100

Drainage channel STANDARD C

With 2 mm steel casing, galvanised. Clearance 100 mm, without inherent slope.

With cascade slope

Installation length	Installation width	Installation height	Nominal width	Units / pal.
500 mm	131 mm	60 mm	100	104
500 mm	131 mm	80 mm	100	104
500 mm	131 mm	100 mm	100	104
500 mm	131 mm	148 mm	100	104
500 mm	131 mm	198 mm	100	104
500 mm	131 mm	248 mm	100	104
500 mm	131 mm	295 mm	100	104
1000 mm	131 mm	60 mm	100	52
1000 mm	131 mm	80 mm	100	52
1000 mm	131 mm	100 mm	100	52
1000 mm	131 mm	148 mm	100	52
1000 mm	131 mm	198 mm	100	52
1000 mm	131 mm	248 mm	100	52
1000 mm	131 mm	295 mm	100	52

Without cascade slope

Installation length	Installation width	Installation height	Nominal width	Units / pal.
500 mm	131 mm	100 mm	100	104
500 mm	131 mm	158 mm	100	104
1000 mm	131 mm	100 mm	100	52
1000 mm	131 mm	158 mm	100	52

Accessories STANDARD C

Inlet box with bucket, galvanised

Installation length	Installation width	Installation height	Nominal width	Units / pal.
500 mm	131 mm	450 mm	100	20
500 mm	131 mm	580 mm	100	20

Universal end wall suitable for channels with a height of 100 – 295 mm

Transition piece for cascade slope

Web grating, galvanised Class A (lockable)

Installation length	Installation width
500 mm	123 mm
1000 mm	123 mm

Mesh grating, galvanised Class B (lockable)

Installation length	Installation width
500 mm	123 mm
1000 mm	123 mm

Web grating, galvanised Class C (lockable)

Installation length	Installation width
500 mm	123 mm
1000 mm	123 mm

Slotted cast grating, Class C (lockable)

Installation length	Installation width
500 mm	123 mm

Installation

The foundation bed of the trench must be carefully sealed in order to eliminate any subsoil loosening due to excavation. Before installation of the channel, the granular subbase and planar contact patch for the concrete foundation must be produced according to the slope of the channel. Shaping in the channel body within the channel bed for connection of drainage pipes is basically made by striking with a hammer from the inside out.

For this purpose, the channel must be positioned flat on the bed and opened by carefully striking with the pointed side of the hammer. In order to avoid the danger of crack formation or undesired fractures, we recommend carefully perforating the deformation with a sharp chisel. Lateral deformations can be reworked beforehand with a drill and drill bit in order to avoid fractures of the channel.

1. Installation of the channel basically begins at the lowest point of the system, the inlet box and the pipework to the ground pipe and is guided to the outer end of the drainage line. In the process, it must be ensured that the ends / joints of the channel remain free from dirt and adhering material in order to be able to provide a tight bond between the individual channel bodies.

2. A flush, continuous contact surface of the channel in the concrete bed without formation of hollow spaces must be ensured. We recommend forming a protrusion of the concrete foundation at the end of the channel section in order to ensure adequate load distribution.

3. Flow-direction arrows are provided on the outer wall for correct installation of the channel.

4. The upper edge of the channel should be 3 – 5 mm permanently lower than the adjoining screed of the drainage surface. Please observe the need for potential re-sealing and settling processes.

5. When compressing the surrounding surfaces, protect the channel from mechanical damages. In order to prevent the drainage channels from compressing, gratings must be installed prior to compression and / or screed work.

6. Channels can be connected directly to the adjacent screed.

7. The concrete rear supports can be guided to the upper edge of the channel.

8. The concrete quality of the rear supports must always match the concrete quality of the driving surface.

9. The surface screed must be installed slip-free on the channel. Pavement and paved surfaces must be applied directly on the channel. Expansion joints should be avoided. A stretcher row should be planned between the channel and screed for fitting parts or cut stones.

10. With use of concrete stretchers, the transitions to a concrete surface must be made with expansion joints with sealant.

11. Basically, channels can also be shortened on site. In the process, it must be ensured that the shortened channel is installed in the outer area of the drainage section, insofar as possible. The cut edges of the channel and the grating must be deburred. Grating should have at least one lock after being shortened.

12. Shaping in the channel body within the channel bed for connection of drainage pipes is basically made by striking with a hammer from the inside out. In order to avoid the danger of crack formation or undesired fractures we recommend carefully perforating the deformation with a sharp chisel. Lateral formations can be reworked beforehand with a drill and drill bit in order to avoid fractures of the channel.

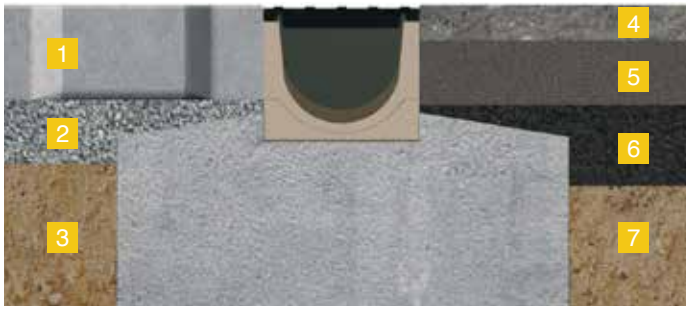
Note / recommendation

For installation in the ground, Wipoton drainage channels must be provided with a concrete casing in accordance with EN 1433 for the desired load class.



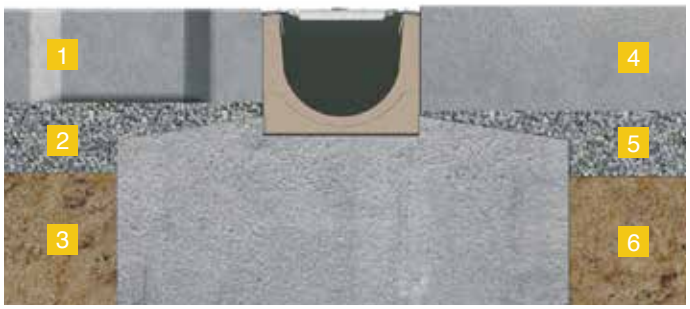

STANDARD installation – road

1 Pavement sand joint approx. 10 mm
2 Pavement bed
3 Base layer
4 Overlay
5 Binder course
6 Bituminous base layer
7 Base layer



STANDARD installation – yard and entrance

1 Pavement sand joint approx. 10 mm
2 Pavement bed
3 Base layer
4 Paved surfaces
5 Pavement bed
6 Base layer

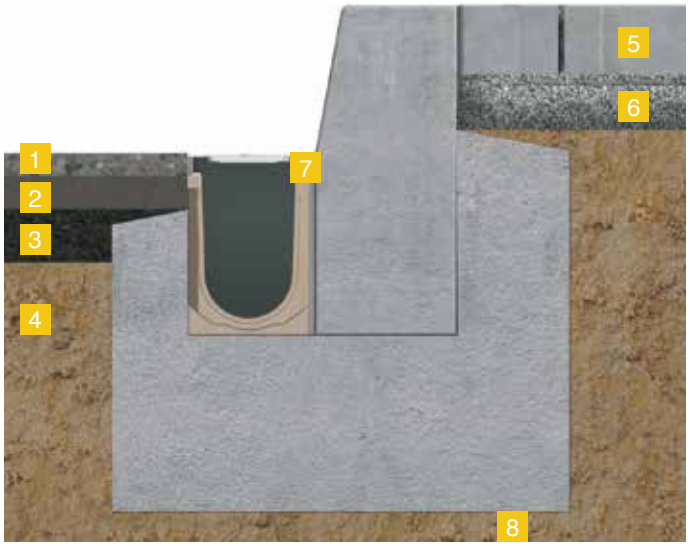


STANDARD C installation – road

1 Pavement sand joint approx. 10 mm
2 Pavement bed
3 Base layer
4 Overlay
5 Binder course
6 Bituminous base layer
7 Concrete C 30/37 XF 4, XD 3, XA 2, XM 1
8 Base layer

STANDARD C installation – yard and entrance

1 2-layer mastic asphalt
2 Binder course
3 Bituminous base layer
4 Base layer
5 Pavement
6 Pavement bed
7 Bituminous base layer
8 Base layer



Installation of the drainage channels

STANDARD

STANDARD C

An overview of the slope

The foundation bed of the trench must be carefully sealed in order to eliminate any subsoil loosening due to excavation. Before installation of the channel, the granular subbase and planar contact patch for the concrete foundation must be produced according to the slope of the channel.

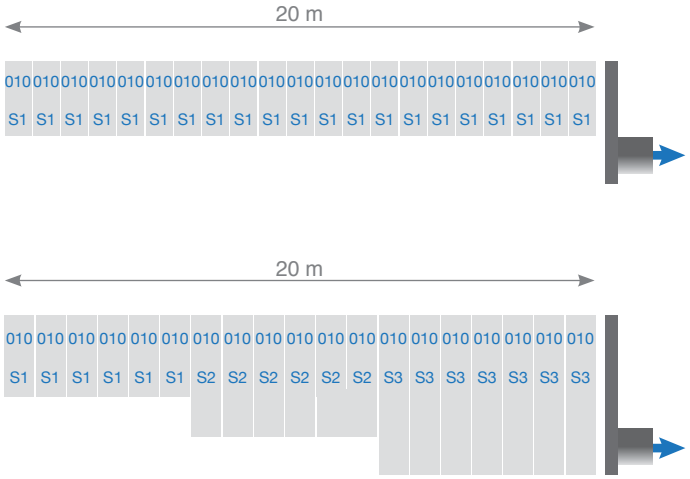
Water surface slope

Installation of the channel systems STANDARD and STANDARD C without slope comes into consideration if there is an adequate natural slope or a slope is not necessary (e.g. in front of a garage) or a slope is not technically feasible (e.g. installation height too low).

Cascade slope

The cascade slope is achieved with channel bodies with different installation heights.

Slope



Personal advice for the best solutions!

WipoTon

Drainage systems

Plastic channels
Standard drainage channels / Standard C
Drainage channels PROFI
Heavy-duty channels Komfort SLR
SL-block monolithic heavy-duty channels
Facade / slotted channels
Yard drains / shoe cleaners

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