General notes

The following installation guidelines and examples are intended for standard use. The load class and the installation according to EN1433 must be adapted to the conditions on site by the planner. The technical rules and regulations generally known in specialist circles must be taken into account during installation. In special cases, contact the BG applications engineering department.

Installation guidelines for FILCOTEN® one

1. FILCOTEN® channels are to be aligned on a concrete foundation in line with the Austrian standard B4710-1 or in single-sized concrete in line with RVS 08.18.01. When the foundations are cured, channel elements have to be put in a bed of high-strength mortar of at least 2-3cm. Depending on the structural requirements, support concrete wedges on each side of the channel or concrete stretchers with steel reinforcement are required – see table and sectional views for details.

2. Start setting up the linear run at the outlet unit, ensuring that the lower part of the outlet unit is at the right height and position to connect with the sewer pipe and the linear channels. If there are several outlet units in one linear run, the lower parts of the outlet units must be installed particularly carefully at the right height and position. Each FILCOTEN® one element can be connected to the previous element at either end, as the tongue & groove & tenon system allows for any flow direction. As a result, there is no flow direction arrow on the elements.

3. When laying the channels, the interlocking joints between the individual lengths can be sealed with a slot-in sealing profile or with conventional sealing materials (e.g. 1-component PU-based sealing materials), the BG applications engineering department will provide you with a description of the materials and determine the quantities required.

4. Before the surface layer is laid, the channels should be protected to avoid concrete spills on the surface, e.g. with protective plastic sheeting.

5. When sealing the upper structure and the surface layer (asphalt, paving, concrete, etc.), make sure that the channels are not damaged.

6. If lateral forces may occur (e.g. concrete surfaces, slopes etc.), sufficiently sized expansion joints must be installed in the road surface, at a distance of 30-200 cm from the channel run. Expansion joints extending transversely across the run are to be arranged in the pavement that they run through a channel joint.

7. If shear forces occur, paved surfaces have to be installed comparable to a stretcher stone. This can be done by placing the first three rows of paving (at the channel run) in a mortar bed. The joints must be backfilled with mineral materials. Shear forces from the paved surface may not have direct impact on the channel walls (e.g. thermal expansion, braking forces, etc.). The respective technical guidelines for the production of bonded or unbonded paved surfaces must be observed accordingly.

8. All adjacent surface layers should **always be 3-5 mm higher** than the surface of the channel to avoid mechanical damage to the channel elements and to ensure the water can drain away.

9. The same installation guidelines apply accordingly to inspection and outlet units (incl. upper/lower parts).

10. The channel system must be checked regularly (at least once a year) to ensure that it is free from dirt and functioning correctly and, if necessary, cleaned – especially the outlet unit, incl. sediment bucket.