

General Advice

These instructions should be read in conjunction with the contract specification and drawings. They are intended to provide guidance in normal installation situations and are addressed to the installer on site. If there are any questions related to the design, unusual installation challenges, or any doubt, consult ABG for further advice. In all situations, responsibility for installation remains with the Installer.

Description

ABG Roofdrain 60S+RX is a geocomposite drainage and water attenuation layer used to store large volumes of rainfall and to significantly reduce run-off (**Fig. 1**). It comprises a perforated cusped HDPE (High Density Polyethylene) core that is filled with lightweight drainage aggregate and overlaid with **ABG Terrex** nonwoven geotextile (aggregate & geotextile supplied separately).

The core is perforated to allow excess rainwater to flow into the underside and away to the nearest drainage outlets. Its major application is in extensive roof garden drainage where **ABG Roofdrain** provides a high strength drainage layer and water reservoir to sustain plant growth. (**Fig. 2**).

ABG Roofdrain 60 can also be filled with concrete for use as a structural drainage void for non-load bearing walls, beneath planters and on podium deck slab constructions. (**Fig. 3**).

Supply

ABG Roofdrain is supplied wrapped in UV light-proof wrap that should only be removed just before installation. (**Fig. 4**).

ABG Roofdrain can be carried or rolled, but should not be dragged. The packaged rolls are 0.92m tall by 0.9m diameter & weigh approx. 31kg. Unrolled, the product dimensions are 60mm tall x 0.92m wide x 15.2m long.



Fig. 1: ABG Roofdrain 60S+RX roof drainage geocomposite. To be filled with lightweight aggregate prior to over-laying with ABG Terrex filter geotextile layer (supplied separately).

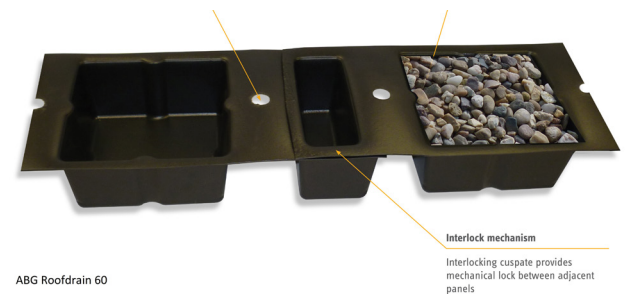


Fig. 2: Adjacent ABG Roofdrain panels interlocking at the edges, storage cusps and drainage void features

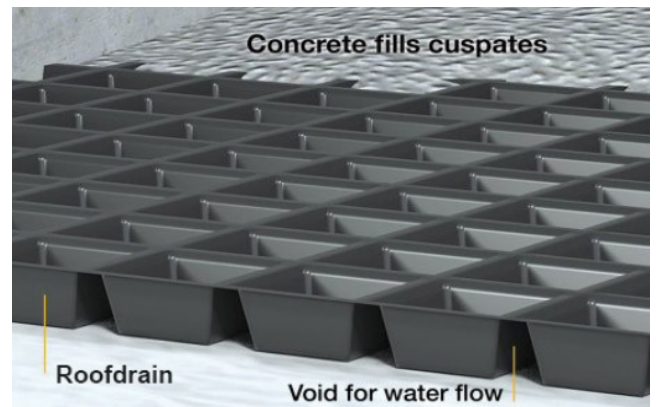


Fig. 3: ABG Roofdrain can be filled with mortar for construction of non-load bearing walls and beneath planters.



Fig. 3: ABG Roofdrain 60S+RX is supplied in a UV light-proof wrap, to be removed just before installation. Packaged rolls are 0.92m tall x 0.9m diameter, weight approx. 31kg.

Equipment Required (Fig. 5)

- Safety knife
- Jointing tape (e.g. **ABG Abseal tape**)
- Cohesive granular fill under hard landscaping **or**
- 10mm pea gravel under soft landscaped areas
- **Terrex** geotextile



Fig. 5: Safety knife, jointing tape, cohesive granular fill or pea gravel, Terrex geotextile (supplied in rolls 4.5 m x 100 m)

Installation guidance

Step 1

ABG Roofdrain is laid with the cusplate openings facing upwards (with the holes in the core at the top), ready to be filled with suitable stone or pea gravel. (**Fig. 6**). In choosing the starting point and direction of laying, consider the intended access route for placing the infill material and growing media to avoid unnecessary trafficking over the **ABG Roofdrain**.



Fig. 6: Lay with geotextile filter & cusplate openings facing up.

Step 2

Put the first roll of **ABG Roofdrain** into position (rolls can be cut to length using a safety knife). For soft landscaping areas, butt adjoining cores next to one another using a tape to connect the panels so that stone infill does not fall inbetween gaps when filling (**Fig. 7**). Alternatively the interlocking method described in step 3 can also be used.



Fig. 7: Butt together and taping method

Step 3

For hard landscaping applications, adjoining panels should be interlocked as shown in **Fig. 8**. The left hand edge of each panel has smaller cups that slot into the right hand edge. They are designed to overlap, so that when the core is infilled they remain fixed together. When fitting rolls end to end, the cusplates can be interlocked in the same way, or butted together and taped as described in step 2.



Fig. 8: Interlocking method

Step 4

When infilling the cusplates, for hard landscaping areas we recommend a lightly compacted cohesive granular fill, or for planted soft landscaped areas using a 10mm pea gravel. (**Fig. 9**).



Fig. 9: Cohesive granular fill for hard landscaping (left) or 10mm pea gravel for planted areas (right)

Step 5

The cores should be fully filled before installing the filter textile on top. (**Fig. 10**). Fully cover all **Roofdrain** panels with the filter textile.

Step 6

Before backfilling, inspect the installation to make sure that there are no gaps in the geotextile where soil can enter the core. Ensure that water can exit freely from the **ABG Roofdrain** if the outlets are along the ends or sides.

Notes

- 1) Damaged sections of drainage core can be cut out locally and a similar shaped piece inserted
- 2) **ABG Roofdrain** can be cut and sealed around columns and other roof slab penetrations
- 3) Do not drive directly on the **ABG Roofdrain**
- 4) Avoid prolonged time between laying **ABG Roofdrain** and infilling, so as to reduce the risk of wind damage
- 5) Interface shear strength is key on very steep roofs. Seek technical advice
- 6) Collect all off-cuts and dispose of responsibly
- 7) There are no known COSHH hazards associated with the installation of **ABG Roofdrain**.

Terms and Conditions

Site specific engineering design should be carried out after site investigation has provided all the necessary information.

The assessment of suitable safety factors in relation to each particular project must always remain the responsibility of the design engineer.



Fig. 10: Infill with stone or gravel before covering with a filter geotextile and growing media for planted areas.