# Otto Graf GmbH

# tender file



# **EcoBloc maxx infiltration bloc**

Infiltration bloc for storage and/or infiltration of rainwater and for positioning on EcoBloc maxx base plates – see separate item – or for creating multiple layers on other EcoBloc maxx infiltration blocs.

Inspection and cleaning is possible by combining with EcoBloc Inspect flex infiltration blocs and the Vario 800 shaft system.

The open structure ensures a three-dimensional flow of water through all system components.

Infiltration blocs are laid to give sufficient coverage by linking with EcoBloc connectors in a horizontal direction – see separate item.

Multiple layers of infiltration blocs can be laid, no connectors needed for the vertical connection.

Long-term load-bearing capacity up to heavy-duty 40 tonne lorry verified.

Max. installation depth up to 5 m.

Technical data:

- Dimensions (LxWxH): 800 x 800 x 350 mm
- Weight: approx. 9 kg
- Material: Polypropylene PP (100% recyclable)
- Colour: grey
- Volume: 225 litres (217 litres net)
- Storage coefficient: 96%

Note:

Installation and laying should be carried out following the manufacturer's instructions.

### Product: GRAF EcoBloc maxx or equivalent

Quantity: ...... Unit: ...... Unit price: ...... Total price: ......

#### Accessories

#### EcoBloc maxx base plate

EcoBloc maxx base plate as the base layer unit for creating an EcoBloc maxx infiltration or storage tank

Technical data:

- Dimensions (LxWxH): 800 x 800 x 40 mm
- Weight: approx. 4 kg
- Material: Polypropylene PP (100% recyclable)
- Colour: grey
- Volume: 25 litres (20 litres net)

#### Note:

Each EcoBloc maxx base plate should be laid on a geotextile or membrane material – see separate item – which in turn is laid on a blinding surface which has been rolled flat – again see separate item. Installation and laying should be carried out following the manufacturer's instructions.

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Product: GRAF EcoBloc maxx base plate or equivalent

Quantity: ..... Unit: ..... Unit price: ..... Total price: .....

# EcoBloc maxx end plate

Side connection plates to end each row and create side panels for GRAF EcoBloc maxx infiltration blocs. Technical data:

- Set consists of two end plates
- Dimensions (LxWxH): 800 x 315 x 80 mm
- Material: Polypropylene PP (100% recyclable)
- Colour: grey
- Each open end/side of the EcoBloc maxx system is closed with an end plate.
- Connections: 2 x DN 250/200/150/100
- Additional DN 100 connector for complete ventilation
- Additional DN 150 connector for complete drainage
- No tools needed for installation

### Product: GRAF EcoBloc maxx end plate or equivalent

Quantity: ..... Unit: ..... Unit price: ..... Total price: .....

### **EcoBloc connectors**

Connectors for joining multiple components of the EcoBloc family, where GRAF EcoBloc system components are laid to provide coverage over any surface area. One connector is required per contact surface between two connecting blocs (side by side and end by end) on every vertical layer of the system components.

Technical data:

- Dimensions (LxWxH): 68 x 26 x 38 mm
- Material: Polypropylene PP (100% recyclable)
- Colour: grey

### Product: GRAF EcoBloc connectors or equivalent

Quantity: ...... Unit: ...... Unit price: ...... Total price: .....

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# **GRAF-Tex geotextile**

Graf-Tex geotextile (8 ounce, non-woven geo-textile fabric), 100% polypropylene filter membrane, mechanically needle-punched to form continuous filament. Rot-proof material between soil and infiltration system prevents infiltration layers from silting up. The Graf-Tex geotextile ensures long lifetime, consistent infiltration and high permeability.

Technical data:

- Opening width: 100 µm
- Water permeability coefficient kv (s = 20 kPa): 1,0 x 10<sup>-3</sup> m/s
- Tensile strength (lengthwise / crosswise): 15 kN/m / 15 kN/m
- Punch push-through force (x-s): 2,0 kN
- Weight: 200 g/m<sup>2</sup>
- Robustness class: 3
- Roll material: Roll width 5 m (196.9")

# **Product: GRAF-Tex geotextile**

# Venting end DN 100 (4" pipe)

Venting end DN 100 (4" pipe) should always be installed for attenuation/infiltration systems in the event of heavy inflow of rain/surface water or undersized house venting installation.

Technical data:

- DN 100 (4" pipe)
- Colour: Black
- Rodent guard
- Can be extended with standard DN 100 (4" pipe)

### Product: GRAF venting end DN 100 (4" pipe)

### EcoBloc adaptor plate DN300 (12") / DN400 (16") / DN500 (20")

EcoBloc adaptor plate DN300 (12") / DN400 (16") / DN500 (20") can be used with EcoBloc Inspect 420, EcoBloc Inspect 230, EcoBloc Inspect flex, EcoBloc maxx and EcoBloc light.

Assembly and installation of the EcoBloc adaptor plate can be achieved on site with accessories and mounting parts to suit individual EcoBloc system configurations.

The position of the adaptor plate can be adjusted for both inlet or outlet operations to achieve optimum volume usage of the combined EcoBloc system.

Simple assembly of each component is possible due to mounting lugs compatible with each of the EcoBloc modules, suitable for the individual operation mode and system configuration.

Maximum installation depth and loading characteristics are equivalent to EcoBloc system components.

Technical data:

- Dimensions (LxWxH): 800 mm (2' 7.5") x 660 mm (2' 2") x 870 mm (2' 10.2")
- Colors: grey
- Mass: ca. 13 kg
- Connections: 1x DN315 (12") / 1x DN400 (16") / 1x DN500 (20")

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Notes:

When using EcoBloc Systems for infiltration operation, the GRAF EcoBloc adaptor plate must be wrapped with geotextile. see position. For using EcoBloc system for storing or to attenuate rain water, PE-HD geomembrane must be welded directly to the GRAF EcoBloc adaptor plate and the combination must be wrapped in geotextile see position.

# Product: GRAF EcoBloc adaptor plate DN300 (12") / DN400 (16") / DN500 (20")

Additional items without material / service from Otto Graf GmbH

# Excavation for EcoBloc system

8-10 cm (3.15"-3.94") thick layer of gravel 8mm/16mm (0,03"/0,06")

Compressed with lightweight machine as horizontal and level plane to lay geotextile and EcoBloc Inspect elements – see separate items –.

# Backfill for EcoBloc system

Gravel of size 20mm/40mm (0.79"/1.57") for side and vertical filling of EcoBloc Inspect System If EcoBloc Inspect are to be filled in layers, observe maximum fill height of around 30 cm (0.98') and compress in layers in accordance with manufacturer's instructions.