# **Otto Graf GmbH**

# tender file



## **EcoBloc Inspect flex**

The EcoBloc Inspect flex can be used for detention, retention and infiltration of rainwater or surface water and must always be fitted and installed on the EcoBloc Inspect baseplates. The EcoBloc Inspect elements should be connected together using Eco connectors. Multiple layers can be laid by using multiple EcoBloc Inspect flex elements without any other accessories. Maximum number of layers 14 (vehicle load) or 13 (HGV60 / HS-25 load). Inspection and cleaning by self-propelling camera cart or probes with connection of DN 200 (8" pipe) Inspection entries. Open interior structure ensures good visibility and ease of movement as well as multidimensional through flow. Long-term load-bearing capacity up to HGV60 load (HS-25) verified.

#### Technical data:

- Dimensions (LxWxH): 800 x 800 x 320 mm (31.44" x 31.44" x 12.6")
- Weight: approx. 8 kg (17.6 lbs)
- Material: Polypropylene PP (100% recyclable)
- Colour: Grey
- Volume: 205 litres / 195 litres (54 US gal. net) / (51.5 US gal. net)
- Reservoir coefficient: 95%
- Connections: 4 x DN 200/150/100 + 4 x DN 100 (4 x 8"/6"/4" + 4 x 4")

#### Note:

The EcoBloc Inspect should be laid on a geotextile or membrane which in turn is laid on a blinding which has been smoothed flat. Installation of the system should be carried out following the manufacturer's instructions.

## **Product: EcoBloc Inspect flex**

## **Accessory**

## **EcoBloc Inspect baseplate**

Baseplate for laying EcoBloc Inspect flex 205 infiltration elements. Baseplates should be laid to give sufficient coverage by positioning with Eco connectors – see separate item. Long-term load-bearing capacity up to HGV60 (HS-25) load verified.

## Technical data:

- Dimensions (L x W x H): 800 x 800 x 40 mm (31.44" x 31.44" x 1.57")
- Weight: 4 kg (8.8 lbs.)
- Material: Polypropylene PP (100% recyclable)
- Colour: Grey
- Volume: 25 litres (6.6 US-gal.)

## Note:

Each EcoBloc Inspect baseplate should be laid on a geotextile or membrane – see GRAF Tex geotextile – which in turn is laid on an excavation which has been smoothed flat – again see excavation instructions. Installation of the system should be carried out following the manufacturer's instructions and strictly adhered to.

## **Product: GRAF EcoBloc Inspect baseplate**

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## EcoBloc Inspect end plate - Eco end plate set

EcoBloc Inspect end plates are fitted at the end of every row of GRAF EcoBloc Inspect flex 205. They include connection surfaces of different pipe sizes.

#### Technical data:

- · Set consists of two end plates
- Dimensions (LxWxH): 742 x 660 x 54 mm (29.2" x 25.98" x 2.1")
- Material: Polypropylene PP (100% recyclable)
- Colour: Grey
- One Eco end plate is needed for each EcoBloc Inspect flex 205 face plate (at end of row only).
- Connections: 2 x DN 200/150/100 (2 x 8"/6"/4") per plate

## Product: GRAF EcoBloc Inspect end plate - Eco end plate set

## **Eco connectors**

Eco Connectors are used to secure individual EcoBloc units together to form the larger EcoBloc assembly. One connector is required for each contact side of the EcoBloc.

#### Technical data:

- Dimensions (LxWxH): 68 x 26 x 38 mm (2.67" x 1.02" x 1.5")
- Material: Polypropylene PP

## **Product: GRAF Eco connectors**

## **GRAF-Tex geotextile**

Graf-Tex 200 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)
- Tensile strength (lengthwise + crosswise)
- Punch push-through force (x-s)
- Weight: 200 g/m²
- Robustness class: 3
- Roll material: Roll width 5 m (196.9")

## **Product: GRAF Tex 200 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

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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")

## 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 Inspect 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 Inspect 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 300 mm (0.98') and compress in layers in accordance with manufacturer's instructions.