Why ECRASTER®?

- Quick and easy to install (about 20 m² per person per hour)
- Low transport and handling costs
- High load capacity (up to 800 t/m² filled)
- Safety locking system
- Surface reinforcement with natural drainage
- Extremely versatile thanks to the BlOXX system being fully compatible with other 50mm grass or gravel filled grids
- Minimises maintenance
- Non-slip and crackproof
- Weatherproof and environmentally friendly
- Resistant to frost and UV radiation
- Easy to fit to borders or cut to shape

Preparations

Determining how much sand, broken stone etc. you need

Before determining how much chippings / broken stone etc. you need, you should specify exactly the height of the surfaces. With larger surfaces you should work with a spirit level or laser. CBR ratings will depict the depth of sub-base that you need to install.

If you do not build a base layer, surface drainage is not assured. Not only that, movement in the natural soil can cause unevenness. ECORASTER® considerably increases the load capacity of the surface, but it goes without saying that even ECORASTER® will be tested to its limits if the entire ground gives way extensively.

Example: car park bay delineation

ECORASTER® BLOXX

Fill in the ECORASTER BlOXX with supplied inserts

Levelling course
Put a layer of 2/5 mm chippings (height approx. 2 cm) and level off roughly

Drainage layer
Put on broken stone grain size 5/32 mm or similar and compact (roller or plate vibrator)
- Height of broken stone for cars: approx. 25 cm
- Height of broken stone for lorries: approx. 45 cm

Natural soil
Create an approx. 1 - 1,5 % gradient in the ground

Optional open membrane

- ECORASTER BlOXX
- Base layer
  - 3 cm (1.18 in) compacted filling material
  - 110g geotextile membrane
- Draining layer
  - 20 cm (7.87 in) compacted draining
- Substructure
  - 10 cm (3.93 in) to 40 cm (15.74 in) draining gravel (0/80)
- Optional open membrane
- Foundation

Optional open membrane
**ECORASTER® BLOXX**

**Working with the preconnected grids**

ECORASTER® is quick and easy to lay without machinery. The system is delivered in preconnected units of 12 sections and can be taken straight off the pallet and laid in one go.

**Installing**

To lay the grids, start in one corner of the area. The lugs of the first row must point in the direction you are working in. The subsequent rows are then pressed into the lugs of the laid surface. We recommend to use a plumb line when installing ECORASTER.

**Disconnecting**

The preconnected sheets can be taken apart if necessary. Lay the sheet you wish to take apart on another sheet and, using your foot, press the tiles you want to remove down and out of the safety locking system.

**Fitting – cutting to size**

For quick and clean tile cutting, the following tools have proved most effective in practice:

- Angle grinder with diamond tipped blade

If there should be some kerbstones, make sure to leave a gap of min. 5 cm.*

To avoid surface distortion at the edges caused by the shear forces of cars, the ECORASTER System can be fixed with ground anchors at the rear end of the parking area.*

As an alternative to ‘J’ pins you may also just press down the rear part of the ECORASTER BLOXX*.

* Direction of travel from left to right
# CBR (California bearing rate)

<table>
<thead>
<tr>
<th>Application Load</th>
<th>CBR % strength of subgrade soil</th>
<th>DoT sub-base thickness (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire trucks, coaches and occasional HGV access</td>
<td>&gt;6</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>=4&lt;6</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>=2&lt;4</td>
<td>190</td>
</tr>
<tr>
<td></td>
<td>=1&lt;2</td>
<td>380</td>
</tr>
<tr>
<td>Light vehicle access and overspill car parking</td>
<td>&gt;6</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>=4&gt;6</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>=2&lt;4</td>
<td>135</td>
</tr>
<tr>
<td></td>
<td>=1&lt;2</td>
<td>260</td>
</tr>
</tbody>
</table>

## Field guidance for estimating sub-grade strengths

<table>
<thead>
<tr>
<th>Consistency</th>
<th>Indicator Tactile(feel)</th>
<th>Visual (Observation)</th>
<th>Mechanical (Test) SPT</th>
<th>CBR %</th>
<th>CU KN/SQM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very soft</td>
<td>Hand sample squeezes</td>
<td>Man standing will</td>
<td>&lt;2</td>
<td>&lt;1</td>
<td>&lt;25</td>
</tr>
<tr>
<td></td>
<td>through fingers</td>
<td>sink&gt;75mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soft</td>
<td>Easily moulded</td>
<td>Man walking sinks</td>
<td>2-4</td>
<td>Around 1</td>
<td>Around 25</td>
</tr>
<tr>
<td></td>
<td>by finger pressure</td>
<td>50-70mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>Moulded by moderate</td>
<td>Man walking sinks</td>
<td>4.8</td>
<td>1-2</td>
<td>25-40</td>
</tr>
<tr>
<td></td>
<td>finger pressure</td>
<td>25mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm</td>
<td>Moulded by strong</td>
<td>Utility truck ruts</td>
<td>8-15</td>
<td>2-4</td>
<td>40-75</td>
</tr>
<tr>
<td></td>
<td>finger pressure</td>
<td>10-25mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stiff</td>
<td>Cannot be moulded but</td>
<td></td>
<td>15-30</td>
<td>4-6</td>
<td>75-150</td>
</tr>
<tr>
<td></td>
<td>can be indented by thumb</td>
<td></td>
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</tbody>
</table>
Irrigate surface before installing ECORASTER®. Fleece from geotextiles reliably prevents mixing up the ground construction layers with the soil.

Only limited suitable for areas which are mainly used by trucks / heavy load.

Tip
For quick and clean cutting to size, a circular saw has proved most effective in practice. For smaller corners which must be cut exactly to size, we recommend that you use a compass saw or strong pruning shears. Do not cut the grids in advance. If possible, lay them over the border and then cut them. Use a small base (slat / board / ECORASTER® tile) to make it easier to cut.

Care instructions
ECORASTER BLOXX should be cleaned regularly to ensure gaps are debris free.

Accessories
- Parking space markers
  A variety of block colours are available to signify edge details or bay markings
- Slope angles
  Universal Slope angle adjustable up to 90° used with connecting grids
- Block sealants for a permeable UV stable surface
- Geotextiles