

From practical experience.

# Emergency access areas

Permeable ground stabilization system





### This is why you should build a permeable system

In the past, flooding and heat islands have proven that permeable ground stabilization is useful and necessary. The advantages are obvious: the ground becomes hard-wearing, but still retains its natural functions. Rainwater can drain away or evaporate where it falls providing cooling: on attractive and easy to maintain surfaces. As a further advantage, expensive drainage and leveling measures can often be avoided.

### Secondary raw materials as a sustainable solution

The materials give planners and architects of outdoor facilities the opportunity to help make a contribution to solving current problems by designing permeable surfaces. When combined with recycling, a construction project then has a better carbon footprint, reducing plastic waste and minimizing land consumption.



### Cost saving due to the ease of installation

Cost-neutral to the classic concrete honeycomb, a ground reinforcement system made of durable and UV-resistant LDPE recycled plastic is attractive thanks to its improved "greenability" and quick and effortless installation. Especially in times when construction companies are fully booked for a long period of time, a system that can be installed quickly provides the perfect solution.



### True 360° recycling - from waste to new product

For over 25 years, PURUS PLASTICS has been manufacturing products from secondary raw materials, including ECORASTER® ground reinforcement systems. Scrap sheets and packaging waste, in particular, are used for production in order to use the LDPE as a raw material for manufacturing. In a true 360° recycling process, the company from Upper Franconia therefore turns a conventional plastic bag into a durable and environmentally-friendly product, "made in Germany."



### Learning from mistakes, so that help arrives.

Following the devastating fire in London's Grenfell Tower in June 2017, the inspection of existing fire protection and rescue systems are being intensified worldwide. Fire departments test the operational readiness and stability of the systems in operation. In a crisis scenario, problem-free access to the site of operation and the securing of escape routes in the outdoor area are system-relevant.

### Securing the set up area

According to DIN 14090, "access or passageways for the fire department, set-up areas and movement areas must be paved in such a way that they can be driven over by fire department vehicles with an axle load of up to 10 t and a permissible total weight of up to 16 t." In addition, DIN 14090 and the current manual for Munich's professional fire department state: "Provided that the rebuilding of soil is avoided by suitable maintenance, paved lawns, grass paving stones or simple constructions of corresponding load-bearing capacity are also permissible." It should be noted that in the state of Bavaria, areas with gravel lawns are excluded or, if necessary, must be checked and applied for separately. (BayTB Annex A 2.2.1.1/1 - Guidelines on emergency access areas). At this point, the Munich Fire Department points out the significantly higher costs and the time lost.



### ECORASTER® - the perfect solution

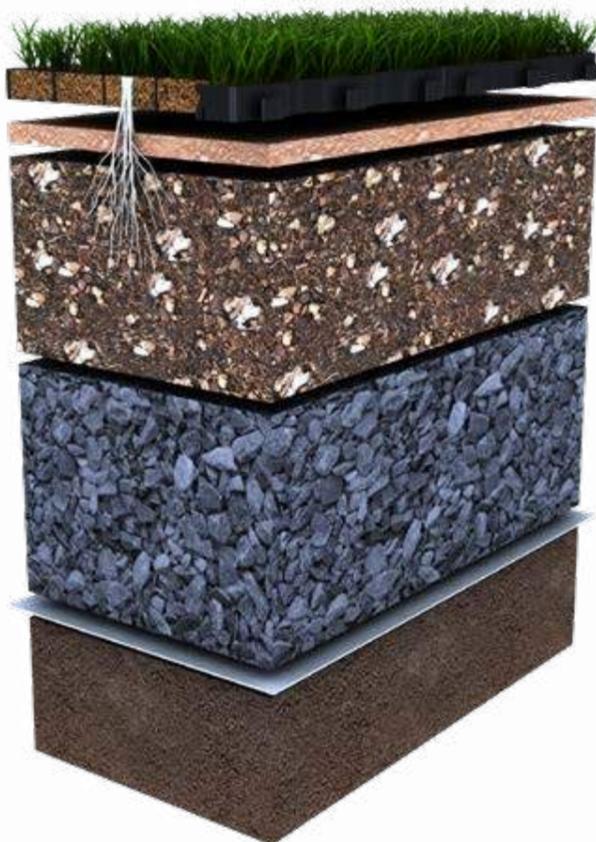
For optimal attachment without extensive testing or dangerous overlapping, the ECORASTER® E50 and Bloxx are the best choice. Made of UV-stable recycled plastic, our ground reinforcement system can withstand more weight than required by the fire department. The entire surface interlocks without tripping hazards and effectively distributes the loads that will be applied. The result is a resilient, low-maintenance surface that integrates perfectly into its surroundings, depending on how it is filled. For the required lane marking, the seamless combination of Bloxx and E50 is a unique option on the market.

# HAMBURG REFERENCE

- Order:** Renovation of existing emergency areas
- Client:** Housing association
- Area:** approx. 15,000 m<sup>2</sup>
- Ground reinforcement system:** ECORASTER® E50



## Filling material and subfloor



- ◀ Filled with "Florian 7" substrate
- ◀ Leveling layer: made of "Florian 7" substrate, compacted to max. 4 cm
- ◀ Subfloor: Mixture of mineral material (frost protection, bituminous pumice) and organic substrate (soil, biomass) in a ratio of 75/25 %, compacted to approx. 35 cm
- ◀ Existing subfloor made of a coarse mineral material (gravel), total height approx. 30 cm



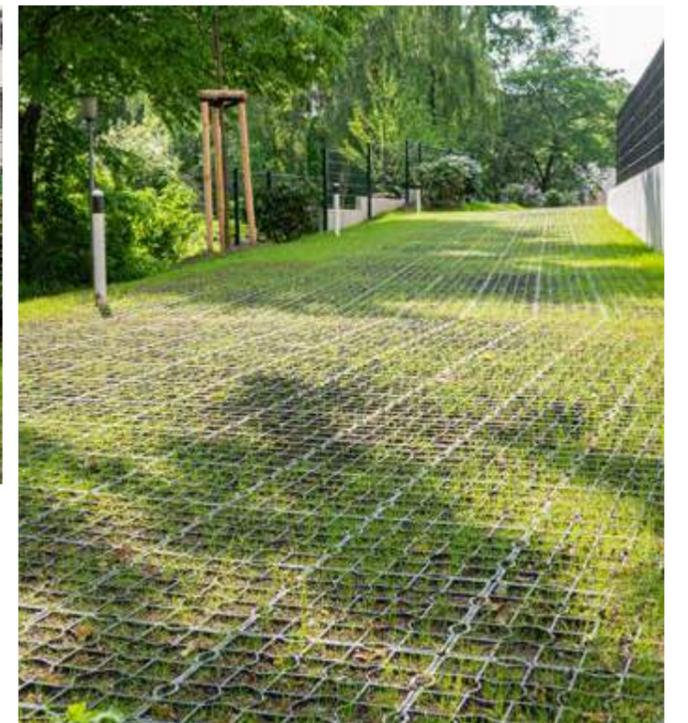
### Result:

The paths are resilient beyond the requirements of the fire department and do not stand out in everyday life. They provide residents with a natural look and an improved microclimate right outside their front door.



### Resistance to flying sparks and radiant heat:

In accordance with DIN 4102 and EN 13 501-1 the green/mineral-filled ECORASTER® Ground Reinforcement System and ECORASTER® Bloxx are classified as building material class 2 and class E respectively.



### Two requests from the fire department:

- Fire department access roads must be usable, even in winter and during construction work.
- You can only benefit from a close cooperation with your local fire department.

We develop sensible and efficient reinforcement solutions for a greener world.



Do you have any questions?  
We are happy to help:

[ecoraster.com](https://www.ecoraster.com)



+49 (0) 9233 7755 0

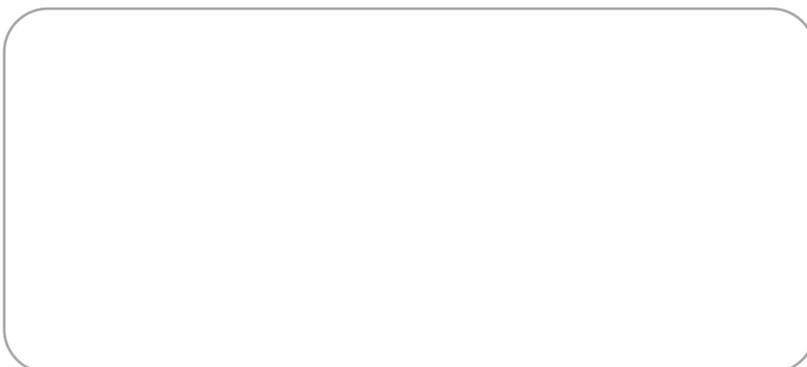


[info@ecoraster.com](mailto:info@ecoraster.com)



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