ECOLOGICAL SURFACE REINFORCEMENT

The path to the future is unsealed.

HÜBNER-LEE

THE ISSUE

Devastating floods. Glowing blazing heat. Dreary grey. Is this what our future looks like? We can already feel that sealed surfaces are exacerbating the consequences of climate change. Let's put an end to it! There is a solution.

THE SOLUTION

Let's design living spaces with TTE® as they should be: green, healthy, in harmony with nature.

OUR GOAL - A GREEN FUTURE

THE SOLUTION - TTE®

- 100% infiltration
- Material **harmless to water and environment**
- **Positive influence on the urban climate** - prevention of heat islands
- Carbon neutrally produced from **100% recycled post-consumer plastics**
- **Flexible combination** of greened, paved or mineral surfaces

MILLION
SQUARE METRES
TTE®

THE SOLUTION

TTE® MULTIDRAIN^{PLUS}

800 x 400 x 60 mm, approx. 27 kg/m², web thickness: 14 - 15 mm

Three solutions for maximum flexibility:
TTE® GREEN, TTE® PAVE and TTE® GRAVEL

TTE® GREEN

An innovative construction principle that opens up new dimensions for vegetation technology, stormwater management and load-bearing capacity. For TTE® is more than just a turf grid.

TTE® PAVE

An intelligent solution that combines permeable pavers with the water storage function of an infiltration trench. This allows even heavy precipitation to be absorbed in a fully decentralised manner.

TTE® GRAVEL

For gravel surfaces that are resilient, permanently level and permeable to water. Goodbye high maintenance and potholes.

ⓘ Request detailed information on the solutions now at:

TTE® PROTECTS SOIL, AIR AND WATER

INTELLIGENT LOAD DISTRIBUTION

Approx. 50% reduction in substructure due to inter-locking connection system

Protection of the soil from compaction & preservation of the seepage capacity

100% INFILTRATION

High infiltration capacity & water storage of 100 l/m²

GROUNDWATER PROTECTION

Near-natural rainwater treatment of polluted rainwater

Protection of groundwater

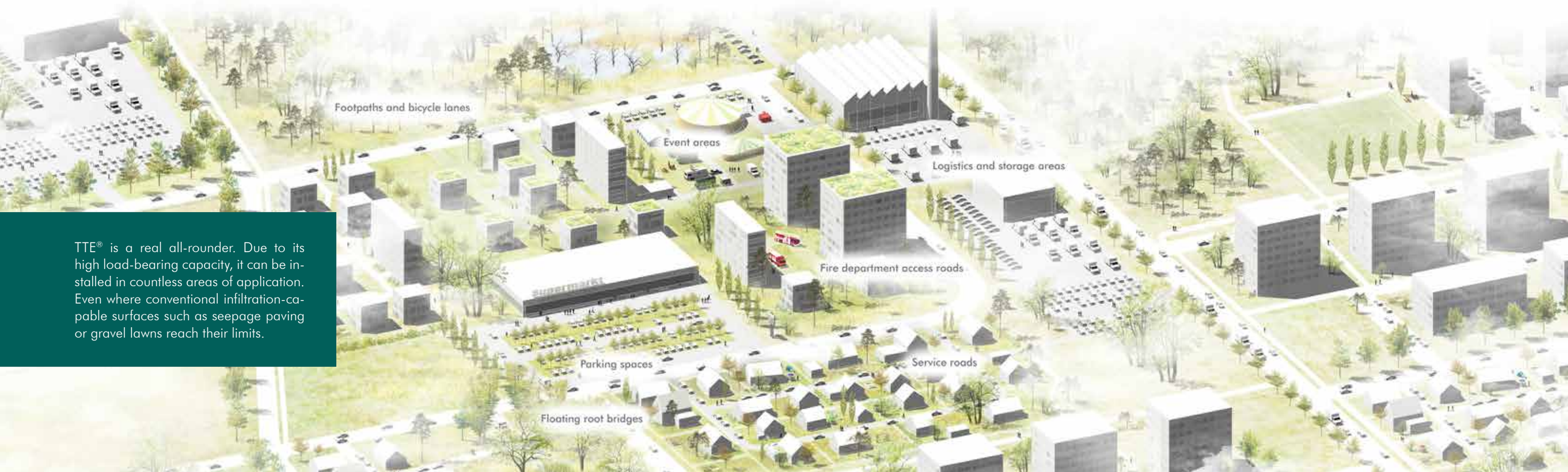
VITAL GREEN

Capillary water and nutrient supply

Extended root zone due to special substrate structure

EVAPORATIVE COOLING

Cooling by 5 °C protects from heat islands



TTE® is a real all-rounder. Due to its high load-bearing capacity, it can be installed in countless areas of application. Even where conventional infiltration-capable surfaces such as seepage paving or gravel lawns reach their limits.

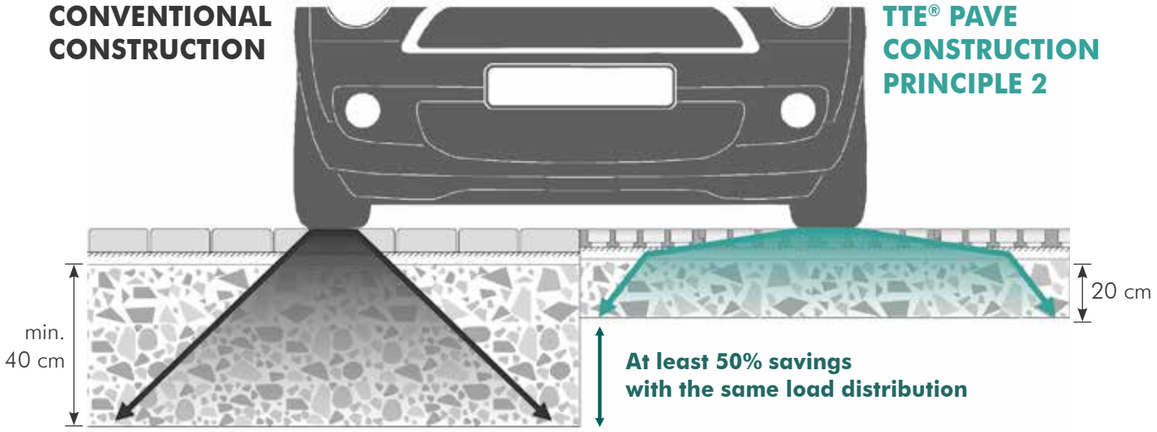
TTE® CONSTRUCTION PRINCIPLES - LESS BASE COURSE, MORE SUSTAINABILITY

The innovative idea of the TTE® construction element: to replace base course material through intelligent load distribution. Thus, TTE® surfaces require a significantly smaller substructure than conventional pavements.

This saves large quantities of the finite resource gravel. A lot of CO_2 is also saved. Because every truck that does not roll to the construction site is a gain for climate protection.

There are three different, tried and tested construction principles for TTE®, depending on the usage load. In this way, we ensure that the substructure of each area is kept as low as possible. At the same time, you achieve improved greening and infiltration thanks to the special system base course layer.

And the ingenious thing about it: the TTE® building concept demonstrably provides the same load transfer as conventional construction methods.



ADVANTAGES COMPARED TO CONVENTIONAL CONSTRUCTION

- Shorter construction time due to reduced substructure
- Elimination of additional drainage facilities
- Lower CO_2 emissions & resource protection
- Protection of soil life & natural balance

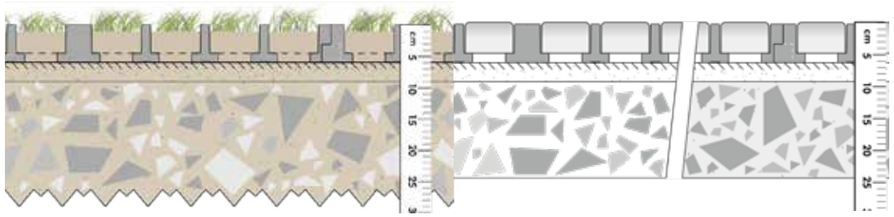
TTE® CONSTRUCTION PRINCIPLE 1

Green 1 **Pave/Gravel 1**

For occas. car traffic up to 3.5 t total weight
E.G.: Footpaths and cycle paths, private parking spaces, private driveways

TTE® CONSTRUCTION PRINCIPLE 2

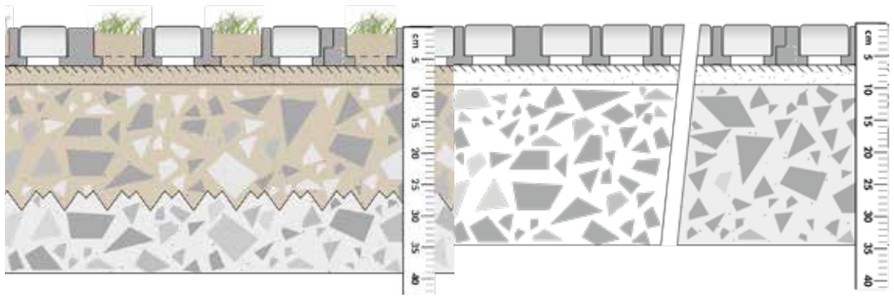
Green 2 **Pave/Gravel 2**



For cars and occas. heavy goods traffic
E.G.: Public car parking spaces & access roads, fire brigade access roads and bypasses, yard pavements, service roads, agricultural roads.

TTE® CONSTRUCTION PRINCIPLE 3

Green 3 **Pave/Gravel 3**



For heavy goods traffic up to 40 t
E.G.: Residential roads, truck and bus parking areas, commercial storage yards and access roads, service roads at motorway service stations

TTE® - CERTIFIED QUALITY

100 % RECYCLING

TTE® is made from 100% recycled post-consumer plastics and can be recycled back into new panels at the end of its service life.

CARBON NEUTRAL SINCE 2021

By supporting certified climate protection projects we compensate 100% of the CO_2 emissions from the production of TTE® Multidrain^{PLUS}.

WITH VERIFIED EPD

The EPD has been verified by the independent Institut Bauen und Umwelt (IBU). It discloses all CO_2 emissions and environmentally relevant factors of the entire TTE® product life cycle.

TÜV SÜD CERTIFIED

The quality and resilience of TTE® Multidrain^{PLUS} has been extensively tested and confirmed by TÜV SÜD.

MADE IN GERMANY

TTE® is manufactured in Weira, Thuringia. Another plant in Herstal, Belgium, supplies further countries in Western Europe.

Source: PLASTIKATLAS, Appenzeller, Hecher, Sack CC-BY-4.0

TTE® - THE SUSTAINABLE ALTERNATIVE

LIVING THE CIRCULAR ECONOMY

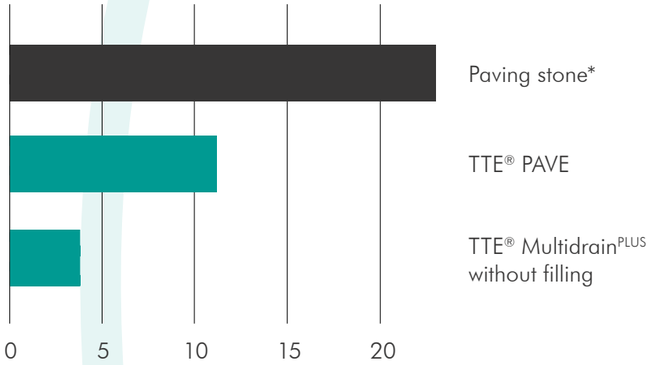
TTE® is not only absolutely sustainable in its functions, but also through its production from 100% post-consumer plastics from German households. Instead of being incinerated, the valuable raw material is given a second life.

Annually, this saves the emission of 40,000 tonnes of CO_2 equivalents compared to incineration.

Recycling also prevents plastic waste from polluting nature and the oceans through illegal disposal. When TTE® reaches the end of its life, it can be recycled again and made into new TTE® elements.

And: Since 2021, TTE® has been produced and supplied in a 100% carbon neutral way.

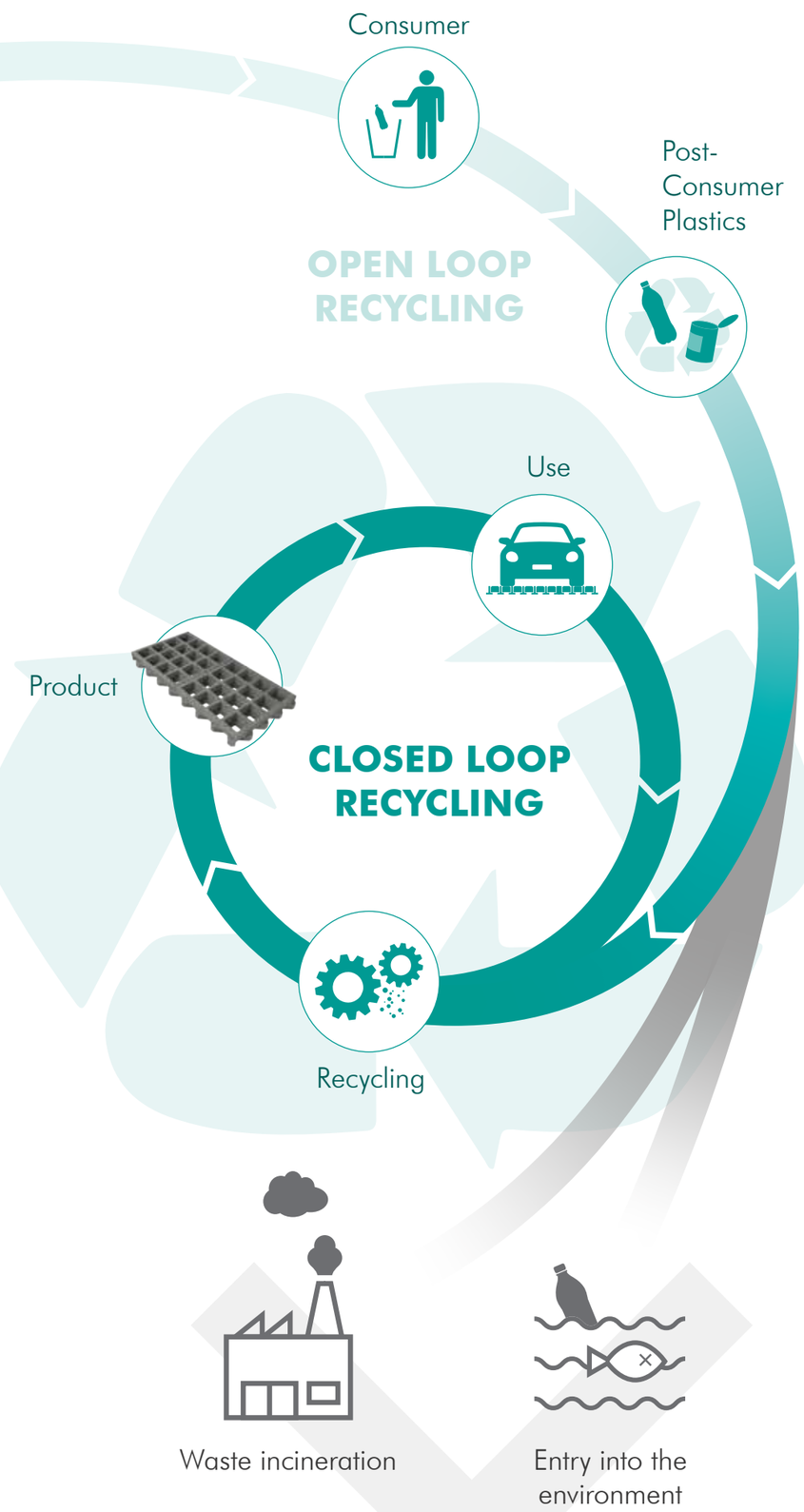
MINIMAL EMISSIONS WITH TTE®



CO_2e emissions per m² in kg

The production of a classic paving stone produces around 24 kg of CO_2e emissions per m². With **TTE® PFLASTER** it is only 11 kg. That is **less than half**.

* Arithmetic mean calculated from the average EPDs of several paving stones stones with 8 cm height



More about sustainability with TTE® at huebner-lee.de/en/sustainability

TTE® REFERENCES

More information at huebner-lee.de/en/outdoorinstallations-referenceprojects

YOUR CONTRIBUTION TO CLIMATE PROTECTION

... using 1,000 m² of TTE® fastening as an example

64,010

This is how many kg of CO_2 equivalent you avoid compared to waste incineration.

13,590

Accordingly, so many bags of plastic waste are recycled for your project.

168,986

The amount of CO_2 avoided corresponds to a flight of this length (km).

CO_2 NEUTRAL
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