

green pavement



2021

COOL TOWNS



Interreg 
2 Seas Mers Zeeën
European Regional Development Fund

MIDDELBURG

Climate change

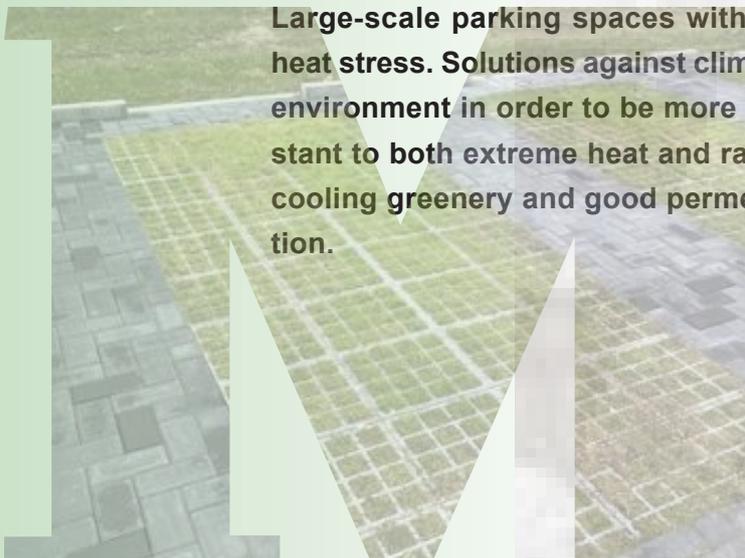
The climate is changing. The temperature on Earth is rising. Due to this climate change, we are faced with extreme weather conditions such as heat waves, heavy rainfall and drought. Climate change has major consequences for people, nature and the environment. That is why it is important to take measures to combat climate change, but also to learn to live with it, so that in times of extreme heat and precipitation we can adapt to this in order to limit the consequences.

Municipalities have the challenge of making existing and new projects climate-proof, while keeping the living environment safe and attractive. One solution is to add greenery, for example by the use of green paving.

A pavement remains necessary for the accessibility of public spaces. By alternating this paving with greenery, accessibility is guaranteed and while at the same time it becomes more climate-proof.



Large-scale parking spaces with dense surfacing affects water permeability and heat stress. Solutions against climate change are included in the design of the urban environment in order to be more climate-proof as a city in the future. Climate resistant to both extreme heat and rain. To achieve this, solutions are needed such as cooling greenery and good permeability to rainwater. Green paving is such a solution.



Green paving is currently being used at the parking lot of the Prinsenhove. The municipality of Middelburg scheduled road and sewer maintenance at De Prinsenhove. These activities were combined with a redesign to achieve a climate-proof living environment in which they added more greenery so that the amount of pavement was reduced and more rainwater could be collected.



This brochure provides information about green paving and the possible positive effects of dealing with extreme weather conditions caused by climate change. There are many types of green pavement. The properties of green surfacing are listed in order to create a useful overview of the benefits of green paving.

Urban heat island

Due to the change in the climate, the earth is warming up and we are faced with extreme heat. The heat island effect is the phenomenon that the temperature in a built-up urban area is on average higher than in the surrounding rural area. This causes



heat stress in built-up areas. The main causes of the heat island effect are the city's dark metals that absorb sunlight and the relatively low wind speeds.

Heat stress



Certain temperatures can lead to heat stress, depending on your personal circumstances and your environment. Particularly in built-up urban areas, where the temperatures are higher than in the surrounding rural areas, heat stress can be severely affected by the heat island effect. Heat stress can have dangerous consequences for your health, so it is important to take the necessary measures to ensure that there is cooling.

Water inconvenience

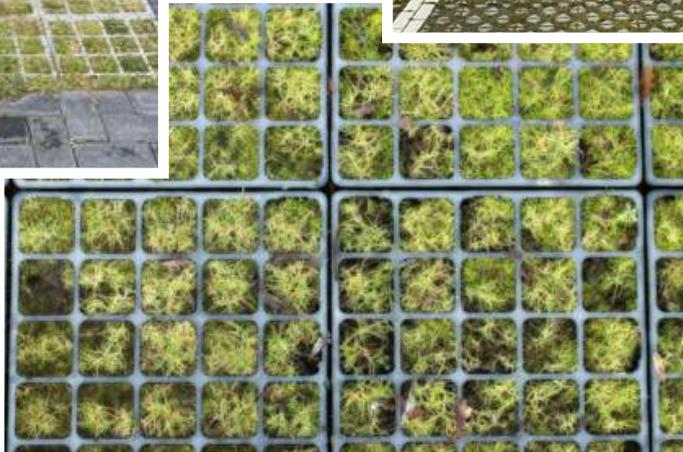
Water inconvenience occurs mainly in urban areas where rainwater cannot sink properly into the soil. This is because urban built-up areas often have poor water permeability. Removing tiles or asphalt and replacing water-permeable pavement offers more space for natural soil life and thus increases biodiversity..



what is green paving?

Green paving is pavement in which green such as grass can grow and is water permeable.

It is important to create more green in built-up areas. This can be done by means of green paving. This is a good alternative to dense paving because it preserves accessibility and accessibility while adding greenery at the same time. Green paving comes in different shapes and sizes.



Green is cooling

Compared to normal dense pavement, green pavement heats up less. This is because the paved surface is smaller with green pavement and it retains less heat. As a result, the temperature is lower at night than with a dense pavement. In addition, grass has a somewhat cooling effect due to moisture evaporating. The larger the green surface of the pavement, the greater the cooling effect!



Water permeability



Due to the openings in the green pavement, the water permeability is high for rainwater, which reduces the flooding on the street during extreme showers. This allows rainwater to sink into the soil and replenish the groundwater, which limits the consequences of drought.

Attractive green image

A green environment not only contributes to combating heat stress, good water permeability and promoting biodiversity, but it also creates an attractive living environment..



Maintenance

The amount of maintenance depends on the desired image. For example, how high the grass can be. This is because grass must be mowed regularly. A parking space in a sports park or industrial estate is ideal for the construction of green pavement because these areas are regularly empty, so that mowing can take place.

