



NATURAL INFILLS

SUSTAINABLE INFILLS FOR SYNTHETIC TURF SYSTEMS

NATURAL INFILLS



polytan

WE MAKE SPORT.

NATURAL INFILLS FOR POLYTAN SYNTHETIC TURF SYSTEMS

Elastic granules in a synthetic turf improve the playing properties. However, due to the size and material properties of the rubber granules, they are considered to be a microplastic. As a result, their use as infill is facing a ban in the European Union. The big question for the industry now is: How can the high demands of a sports surface be met if rubber granules are prohibited? One solution is infill that, on the one hand, complies with green laws such as the Circular Economy Act, and, on the other hand, satisfies athletes' requirements.

Polytan offers several sustainable options. The materials used fulfil the high quality requirements of sports facilities, while ensuring that the production process runs as resource-efficiently as possible. This is part of our corporate strategy aimed at carbon-neutral production. The shift toward emissions reduction can clearly be seen in the growing number of our Green Technology synthetic turfs and increasing production levels based on circular economy laws. But what does the term "circular economy" actually mean? It means that the materials used are not disposed of at the end of the product life cycle but recycled and reused

instead. After all, waste not only generates emissions but squanders resources and energy, too.

Polytan embraces this concept and, where possible, avoids traditional, linear production processes. To create a cycle that is as closed as possible, the end of the process – i.e. disposal via recycling – is already taken into consideration when our products are developed. This also applies to the infills we offer.

BROCKFILL

One excellent example is BrockFILL. This specially designed infill for synthetic turf is made of wood, a natural material. It is acquired from fast-growing pines that are planted specifically for processing. After about a decade, the trees are ready to be felled and used as a component for a wood/sand infill that helps to create a synthetic turf that meets a variety of sporting requirements.

This infill has several benefits:

- Durability
- Optimal drainage properties
- Lowers the ground temperature
- Prevents weed growth
- Does not splinter or float
- No mould or bacteria growth

At the end of its service life, the material is fed back to the environment as mulch rather than being sent to a landfill.

The infill material has been checked in various turf systems for sporting suitability and meets the requirements of World Rugby and FIFA's quality programme for synthetic turf systems. In terms of sports biomechanics, tests have shown that the layer of wood and sand offers benefits for movement patterns. Ultimately, using BrockFILL not only has a positive effect on the environment but on athletes as well.

FACTS ABOUT BROCKFILL

BrockFILL – minimal wear, maximal cooling

The wood particles are manufactured in a special process: splinters and fungus are cleared away before the particles are rounded off. This results in wood chips that are softer and less abrasive to the skin. In addition, BrockFILL particles absorb rainwater and condensation. The absorbed moisture is then gradually released for cooling. Because it becomes heavier when wet, BrockFILL does not float, preventing it from being washed away in heavy rain. Synthetic turf filled with BrockFILL feels like natural turf and falls within the optimal traction range.



FACTS ABOUT CORK

Cork oak must be up to three decades old before it can be peeled. After peeling, it must regenerate for at least ten years. The bark can then be peeled again. Regularly peeled cork oak trees absorb up to 30 % more CO₂ than those that are not peeled.



CORK

Cork is another infill material that lives up to Polytan's sustainability requirements. This natural material is extremely environmentally friendly, as exhibited by the following facts: Cork forests are among the world's 36 biodiversity hotspots, partly because they are hungry for CO₂. With a surface area of around 2.3 million hectares, for example, the Mediterranean cork forests absorb around 14 million tonnes of CO₂ each year. This equates to around a tenth of the CO₂ emissions caused by traffic in Germany, according to the German Environment Agency.

Cork production is the source of income and livelihood for over 100.000 people, with a production area the size of 1 million football fields.

In addition, the bark offers good insulating properties. This protects the surfaces of the sport facilities from excessively high or low temperatures. At the same time, the infill granulate is breathable and resistant to pests and bacteria.

Like BrockFILL, the cork infill offers excellent biomechanical benefits, and also fulfils the requirements of World Rugby and the FIFA quality programme for synthetic turf systems. "The system structure provides ideal shock absorption, reducing the risk of injury and, thanks to a lowered energy recoil, also provides more player comfort. The mixture gives the artificial turf fibre the necessary support function and does not rot," explains Michael Pajak, Product Manager for Synthetic Turf Systems at Polytan.

OLIVE PITS

Infill made of shredded olive pits and sand is another sustainable alternative to rubber granules. Some of our synthetic turf products are offered with sand/olive pit infills. The sand adds weight to the synthetic turf system, while the olive pits function as a performance infill providing the sporting properties. This infill also meets the requirements of the circular economy and, like the previously mentioned infills, is compostable.

Olive pits are a waste product from olive oil production. The last fruit and peel remnants are separated from the cake. Dried and ground, they can be used as an environmentally friendly infill. Here, too, the following applies: Olive pit granules do not float, and therefore stay in place during heavy rain. They are also a durable and temperature-regulating material.

FACTS ABOUT OLIVE PITS

When producing olive oil, the olive – including the stone – is pressed. The resulting pomace is then centrifuged. This separates the oil from the fruit pulp and peel residue. Once dry, the residue forms beige granules that look very natural.

The particles can be processed in selectable sizes during shredding.





LigaTURF

Product	Available Infills	GT	Sport	Division
LigaTurf Cross GT zero	S, S+C, S+B	Bio-based	Football, Rugby, American football	Professional, Amateur Leisure
LigaTurf Cross GTR	S, S+C, S+B	Bio-based, Recycling	Football, Rugby, American Football	Amateur, Leisure
LigaTurf Cross GT	S, S+C, S+B	Bio-based	Football	Amateur, Leisure
LigaTurf Cross	S, S+C, S+B, S+R		Football, Rugby, American Football	Professional, Amateur, Leisure
LigaTurf RS Pro II	S+R, S+C		Football	Professional
LigaTurf RS+	S+R, S+C, S+B		Football, Rugby, American Football	Professional, Amateur
LigaTurf Legend Pro	S+R, S+C		Football, Rugby, American Football	Professional, Amateur, Leisure

NATURAL INFILLS

LigaGRASS

Product	Available Infills	GT	Sport	Division
LigaGrass Pro	S, S+R, S+C		Football, Multi-sport, Hockey	Amateur, Leisure
LigaGrass Synergy	S, S+R, S+B		Football, Multi-sport	Amateur, Leisure

S = filled with sand, S+C = filled with sand and cork, S+B = filled with sand and BrockFILL, S+R = filled with sand and rubber



We act sustainably – from development and the selection of our raw materials, to the production, installation, maintenance and recycling of our sports surfaces. Our products are designed with durability and efficient manufacturing in mind, using ecological materials and reliable processes.

More at: www.polytan.com/sustainability

425_2093_22_05_en

Get personalised support for your questions

Polytan GmbH, Gewerbering 3, 86666 Burgheim, Germany
Learn more at: www.polytan.com/products/turf

Contact:

+49 (0) 8432 / 87-0
info@polytan.com