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SYNTHETIC FOOTBALL FIELD INFILL

PERFORMANCE INFILL COMMENTS

Polytan offer a range of performance infill options for our synthetic football and multisport playing surfaces.

Options vary in pricing and benefits to our clients. This is a critical consideration in the selection process for your field given the variety of synthetic turf surfaces – imported and locally manufactured – and recommended maintenance service advice.

NATURAL MATERIALS FOR SYNTHETIC FIELD INFILL

Polytan acknowledge that natural materials have emerged to replace rubber performance infill options.

As the leading installer of synthetic football fields globally, Polytan has naturally been thorough in our assessment of suitable options.

Our focus has been to study the breakdown of the natural infill material within the turf pile, understand necessary higher maintenance costs (due to increased regularity of visits), cost of imported materials, practicality of ongoing ‘top up’ of this infill and consistency of field performance in critical high wear areas of the field.

Our international R & D team calculate every year a significant ‘top up’ of the infill is needed and given the high cost and expected field life of 10+ years this is a significant price consideration!

This requirement means more regular grooming to avoid natural flattening of the turf pile is very important to allow additional material to be installed in later years.

Other considerations are:

- Ideally, an irrigation system should be installed to minimise any wind-borne transfer of this lighter infill across the field and surrounding areas,
- Edge details need to be significantly raised to retain the lighter infill during high rainfall events and prevent spread of the infill across the nearby areas and from washing into drainage systems and waterways,
- A substantial added stock should be kept nearby for essential top up during maintenance activity,

Whilst cork is the most commonly mentioned option, there have been multiple occasions where the ‘wash out’ has been significant and so our focus has been on **BrockFill** and we urge you to go through the technical data included in our tender submission if considering this option.

BrockFill is a highly engineered wood particle infill specifically designed to improve traction and reduce artificial turf heat.



Because BrockFill is hydrophilic, it absorbs water and gains weight when exposed to rain or irrigation. This means BrockFill is much less prone to floating and migration than cork. When fully saturated with moisture, BrockFill particles become denser than water and will not float.

EPDM ST20

Polytan are proud to offer at the highest quality end of the market, a virgin, purpose-manufactured, stable, attractive rubber option as the performance infill for football surfaces.

Direct benefits of EPDM ST20 performance infill:

- Eliminates player and resident concerns with environmental or health factors loosely associated with black recycled SBR granules,
- Elimination of the strong 'rubber' smell in hot conditions,
- There is a direct manufacturer for the infill to offer comfort to warranty and service,
- Excellent UV and heat stability for the performance infill, a massive benefit over both SBR rubber and natural infill materials,
- Ensures a slower heat increase to synthetic playing surfaces through the lighter colour,
- Results in a more attractive playing surface,
- Elimination of black colour-transfer to the skin from SBR rubber breakdown.

Polytan provides test reports and promotional details to support our view that – where possible and budget allows – this quality infill will provide a level of comfort for the life of the field.

Being able to swiftly deal with negative feedback from the local community over possible health effect on players and children is a substantial consideration for the selection of virgin rubber infill.

Concerns can be put to rest given EPDM ST20 is harmless and tested to International Standards **EN 71-3** and **ZEK 01.4-08** that apply to toys for infants!

The significant cost differential means we urge you to closely consider the technical data provided in our submission and consider finding yourself in the position of defending a decision to your community, if challenged, over the massive investment of a synthetic field for the community!

Black recycled SBR granules

Despite ill-informed comments, there are multiple reports from studies conducted worldwide, that conclude there is no proven connection between this performance infill and any health risk.

It can in fact be demonstrated that exposure outdoors to these granules on a sports field during participation in a sport or recreation activity is far healthier than sitting in your home!

Concerns can however be raised despite these reports, so the subject is not 'closed'.

Issues that cannot be avoided on fields using recycled rubber SBR performance infill:

- They have a 'rubber' smell in hot conditions,
- These granules do not have a known source given they come primarily from granulated truck tyres and as such you do not have a confirmed origin of the SBR granules,
- Regulations in some countries place limitations on the presence of Polycyclic Aromatic Hydrocarbons (PAHs) in SBR rubber infill meaning specific suppliers must be used,

- There is lower UV stability to minimise break down from exposure to the sun's rays and this will be prevalent in the latter years of the field life,
- This rubber will result in the hottest playing surface during warmer months,

Polytan can source recycled SBR granules from REACH Compliant suppliers which is a critical consideration in the experienced European market.

Importantly, Polytan would not offer the option of recycled SBR granules as a performance infill if there was a genuine concern, they would cause a safety issue.

COATED SBR GRANULES

Polytan was the first organisation to introduce alternative rubber infill options to the Australian synthetic football market.

The initial direction was to install the best possible quality coated-SBR granule (sourced from the mature European market) into a field immediately adjacent to one with black recycled SBR. This gave us a 'test site' to allow a study of the difference between the resulting surfaces.

Early results indicated the main benefit was eliminating the rubber smell at the facility and providing a better field appearance. Unfortunately, the coating will wear off the granule within a short period – as has been experienced in the soft-fall market.

We have seen others offer this alternative as a cost-efficient alternative however this has largely been unsuccessful in the synthetic football field market.

THERMOPLASTIC ELASTOMER (TPE)

Polytan's success in introducing EPDM virgin rubber performance infill to the market resulted in other less expensive virgin rubber options being offered – the main one being TPE.

Chemical analysis of the manufacturing process shows TPE infill can provide a comparable UV stability but only if highest quality, expensive polymers are used so TPE should be significantly higher in cost!

Given that the systems that have been introduced have been to provide a cheaper 'systems cost' the natural concern is the quality of the imported TPE material.

Polytan does not intend to pursue this alternative as in the Australia climate the lower cost TPE performance infill will result in future problems.