

Melos® Infill

for perfect artificial turf

The number of sports pitches using artificial turf is steadily on the increase as players have come to accept this modern playing surface for sport and leisure activities. Technical demands of modern artificial turf systems have, however, also significantly increased. International football associations, such as the FIFA and UEFA, have a clear concept defining properties which must be met and have set out a comprehensive range of inspection and testing procedures to ensure suitability of pitches. Along with the functional sport properties of the turf systems, a large number of further requirements must also be satisfied including, for example, environmental compatibility of the materials used, long life expectancy of the system components and also the re-usability and recyclability of the whole system after it has served its purpose.

These requirements have further increased the demand for high-performance infill granules. From a player's point of view, the requirements made of an artificial turf system can be summarised as following:

- | minimal stress on muscles and joints
- | low risk of injury due to very low sliding friction and soft touch properties
- | high pass accuracy, very good and consistent roll and rebound behaviour of the ball
- | safe and quick changes in direction due to optimal turning resistance
- | dynamic and safe checking and stopping under different weather conditions

From the point of view of the owner of an artificial turf pitch, the following points are very important:

- | high profitability
- | long life-expectancy under intensive use
- | year-round use
- | easy maintenance
- | environmentally friendly/recyclable



cushioning effect



sliding and soft touch effect



precise playing characteristics



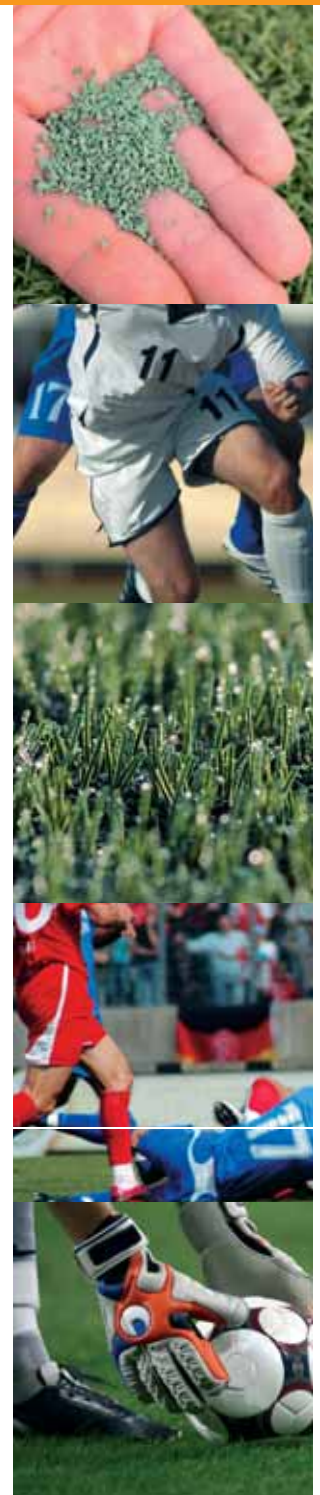
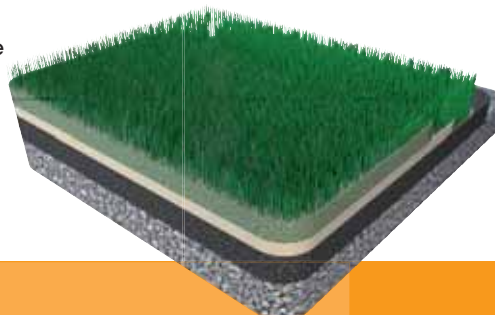
weather independent



environmentally friendly



optimal ball rebound



In order to fulfil these requirements, Melos is constantly developing its infill granules. A test pitch of artificial turf near the company is available for use by local clubs. It is used to test the latest versions of infill granules and to obtain information from the players regarding playing characteristics. This combination allows continual development and improvement of the infill granules for artificial turf systems. A further test field has been installed in Marienfeld (East Westphalia, Germany). This location was chosen as it is the training site for national and top-league teams, which means that the playing properties are constantly monitored under professional conditions.

This intensive development work has resulted in a product range which covers, to a very great extent, the different modern requirements demanded of infill granules. The latest generation of infill products, TPS infill granules, have an excellent property profile and provide players with a unique playing experience. The properties of the granules, as those of all our other products, can be modified to optimally suit all conventional types of turf. The product has no odour and is completely environmentally compatible. In addition, the infill granules have ideal "soft touch" properties, which provide an additional improvement of the sliding friction behaviour. A further significant advantage is that the granules can be recycled allowing them to be returned to the economic cycle as secondary raw material after their primary use.

The cost benefit is naturally also taken into consideration. It is still a wide held belief that a high unit purchasing price will also result in a high price per square metre of pitch. However, this is not automatically the case as the amount of granules used is measured in volume and this is influenced by the bulk density of the granules, measured in grams per litre.

The bulk density is decisively influenced by the specific gravity (density) and grain size of the infill as well as the grain distribution. Through targeted selection of suitable raw materials and the amounts used, in combination with optimised manufacturing and granulating procedures, we can create varieties which have a low bulk density, therefore providing an optimised cost and performance profile.

All types of Melos infill granules can be modified to be flame retardant and so satisfy the relevant fire-protection regulations. Use of Melos infill granules can provide the complete system with a high flame retardant classification. Taking the construction design of modern sport stadiums into consideration, the best possible safety precautions to avoid every risk must be taken.

Development work on our infill granules continues and is constantly ongoing. Together with our system partners, our intention is to develop a perfect artificial turf system, providing players with a perfect playing surface and having the best properties of natural grass.



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