

SPECIALITIES

Profile Greens

A porous ceramic **soil amendment** for high performance root zones







WHY PROFILE GREENS

- Improves root zones by adding water, nutrient and air holding capacity to the soil structure
- Excellent stability still stable after 30 years
- High, permanent Cation Exchange Capacity (CEC)
- Consistent USGA particle size distribution 99% between 0.15-1.0 mm
- Proven by university studies to hold water like peat but drains like sand

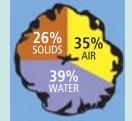


The Profie Greens particle

Each particle is 74% pore space with approximately 39% capillary (water) pores and 35% non-capillary (air) pores. Profile Greens blended with sand or soil increases the water and nutrient holding pores as well as increasing the air and drainage pores.

Profile's CEC will assist in the retention of nutrients, but unlike organic materials, such as peat, will not cause layering and will increase percolation rates.

Profile Field & Fairway has a slightly larger particle size providing 78% porosity of which 41% is capillary pore space and 37% is non-capillary pore space.







How Profile Greens works

Profile Greens physically improves the soil structure. In sand it increases water retention and nutrient-holding because of the capillary pores and the Cation Exchange Capacity (CEC). Percolation rates are increased when it is mixed with sand because of the non-capillary pore space within the product. Soil-based greens benefit by the added porosity Profile Greens provides for better drainage.

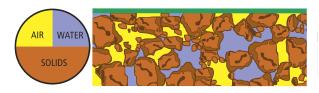
Profile Greens is very stable: Profile Greens is four times as stable as USGA requirements and has been shown not to break down. Stable particles have been found in Purdue University greens 30 years after incorporation.

Profile Greens has a high CEC: A permanent CEC of 33 meq/100g is provided by Profile Greens. It has a strong affinity for Potassium, which can leach quite readily from sand-based rootzones. Profile Greens has a low affinity for Sodium and in high salt areas it can therefore help amend the root zone by increasing drainage, allowing the flushing of greens of Sodium.

Profile Greens holds water like peat, but drains like sand: Ohio State University proved Profile Greens' 50/50 balance of capillary and non-capillary pore space will retain water and yet also let water drain. Water is held within, and drawn through, the capillary pore space of the porous ceramic particles. The non-capillary pore space lets water flow through the soil if it becomes saturated. Adding Profile Greens to sands will increase percolation rates and improve water availability.

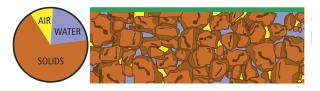
Profile Greens reduces surface algal problems: By frequent light top dressings of Profile Greens, the excellent absorptive characteristics enable it to retain the moisture which is necessary for surface algal growth.

Soil structures explained



THE IDEAL SOIL

Ideal soil should contain 50% solid and 50% pore space. (½ capillary or water holding pore space and ½ non-capillary or air-holding and drainage pore space)



COMPACTED SOIL

Compacted soil reduces or eliminates the non capillary (air-holding and drainage) pore space



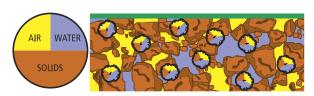
SAND SOIL

Sand soils resist compaction, but they have little water or nutrient retention ability.



SAND/PEAT MIX

(Percolation rate: 12-15" per hour). Peat has been added to sand soils to increase water and nutrient retention. The problem is that peat or other organic materials tend to reduce water percolation rates and are relatively short-lived.



SAND/PROFILE GREENS MIX

(Percolation rate: 20-24"per hour) Profile brings sand back to the ideal soil conditions by balancing pore space. It improves percolation rates, water retention and nutrient retention.



Profile Greens should be used for high performance root zones e.g. golf greens, bowling greens whilst Profile Field & Fairway is ideal for use in most amenity areas like sportsgrounds and golf fairways,

