

LASSENITE POZZOLAN SOIL AMENDMENTS

The term Pozzolan is derived from the ancient term Pozzolana, which refers to a volcanic ash (finely divided siliceous and aluminous material) found on the slopes of Mt. Vesuvius, adjacent to the small town of Pozzouli near the bay of Naples. The Lassenite Pozzolan deposit, which is primarily amorphous silica, originated 26 million years ago when nearby volcanoes erupted and the volcanic ash was deposited into freshwater lakes. These freshwater lakes contained large amounts of protozoa called diatoms. The skeleton of this tiny organism is extremely porous and adsorbent which allows for the efficient movement of air and water available to turf and plants.

Western Pozzolan produces a wide array of inorganic soil amendments designed specifically for the golf/landscaping/turf industry and other intensively managed turf applications. These products range in size and temperature of kiln firing depending upon application and soil type. We kiln fire this material to drive up the hardness and make it more resistant to breakdown. Even in its finest form, Lassenite is extremely porous. Western has designed these products to work well with topdressing, hydraulic injection and drill and fill equipment.

PHYSICAL ANALYSIS

Hydraulic Conductivity Inches/Hour	Bulk Density g/cc	Capillary Pore Space	Non-Capillary Pore Space
10.9	.81	50 %	18%

Capillary or water holding pore space is made up of small pores that hold water against the force of gravity retaining much of it for use by the plant. Non-capillary or air holding pore space is made up of larger pores. When drained of water these pores fill with air providing oxygen to the root zone. The physical measurements show that Lassenite Pozzolan Soil Amendments have a very high amount of total porosity and retain a very high amount of plant available water. Therefore, Lassenite Soil Amendments will be very effective in increasing the capillary or water filled porosity of a root zone. Test results determined that the addition of Lassenite Soil Amendments can beneficially change the water release pattern in the soil profile, eliminating localized dry spots and reducing irrigation requirements. Many inorganic amendments maintain the ability to absorb moisture. Lassenite has the unique ability to make the majority of this moisture available to the plant.

The ability of a soil amendment to aerate soil is a function of the compaction properties of the material. Lassenite Soil Amendments blended into a soil horizon result in a dramatic improvement of porosity, attesting to Lassenite's inherent ability to improve the aeration of the soils and reduce compaction.

Ideally, a growing medium has an equal amount of air and water pore space after free drainage. Lassenite is a tool designed to provide the Turf Manager with the ability to change the physical characteristics of the soil profile, depending upon existing site conditions and environmental influences, in order to produce the most desirable balance between air and water filled pore space.

Lassenite ATS is available in a variety of sizes depending upon application and soil type.

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