



HyGT SS21

SS21 is a Sand Stabilizing product designed for Engineering purposes.

It has been formulated, tested and applied effectively in Coarse Grained soils and soils with low fines content.

Silty Soils, Sandy Soils and Gravelly soils turned into a "Mass", linked with SS21.

This process can be undone as well, coming back easily to the original situation by using other of our products.



Roads Engineering

SS21 has been successfully used in Roads build-ups for Roads, highways, site access in Oil&Gas Sites, Mining and general Civil Engineering Works.

This product is simply applied in the compaction water, mixed. As well, can be sprayed over the soil surface. Specifications depends on the use.



ROADS ENGINEERING

For Roads Engineers, the following properties of interest are improved:

CBR

CBR (*California Bearing Ratio*) values are raised considerably. The improving depends on the soil condition and the amount of product used. Our technical group can give detailed information of our lab test results for different soil conditions and amount of product used.

UCS

UCS (*Unconfined Compression Strength*) values usually in Sandy/Gravelly soils are null, as the soil has no self-standing condition to develop these tests (Frictional soils). Regarding this, the cohesion generated by the adhesion of SS21, allows the possibility to the samples to self stand and develop these tests, with high results as the curing process progress.

DUST

Dust Control, is required in roads, as the dust highly reduces the visibility. With SS21, no dust is merging from the surface, as the product is highly effective for keeping the particles adhered. Dust in air measurements gives us low to null values in comparison with no treatment condition, and complying with the HSE requirements.

ROADS ENGINEERING

For Roads Engineers, the following properties of interest are improved:

PERMEABILITY

Permeability of soils can be reduced from high permeability to "Impermeable". The waterproof effect that SS21 does to the soil, generates an strong adherence and makes possible to let the water flow in the top of the sand. The results of this condition are tested, and proved with lab testing and sites applications. Temporary water channels has been done in sand with this product.

EROSION

Erodibility of soils in roads is a huge problem. Using SS21, roads in Oil&Gas sites that has weekly maintainance, are now yearly maintained as general protocol, but they can allow more time between maintainance.

WET-DRY CONDITIONS

Dry/Wet cycles and submerged condition of soils, is one of the main causes of deterioration of road build-ups. Our tests has shown that a small block of sand treated with SS21, can stand months under the water without any change. As well, samples for testing shown that after submerged condition, the values has not experience significantly changes, and comply with the same standards in soaked and unsoaked condition.



EROSION, STABILITY & DUST CONTROL



DUNES AND COASTAL EROSION & STABILITY

Dunes erosion has been effectively treated with SS21. Dunes and roads in sand between the dunes, became stable after SS21 is applied. The erosion from water and wind is no longer a problem, and the dunes and sand roads are fully transitable for pedestrians and light vehicles with simple spray application.

Stable dunes are made with a simple mix of Sandy soil and SS21, safe and strong. The landscaping can be easily solved using SS21 for the adherence of particles of Coarse soils. SS21 is a durable and strong solution for old problems that are now still an issue around the world.

Coastal environments, usually with Coarse grained soils, can be easily treated with SS21, and the surface can be made as required, only mixing the soil with SS21, or applying as spray over the modelled surface. Coastal erosion in Sandy soils has been a problem until SS21 was developed.






EROSION, STABILITY & DUST CONTROL

SLOPES/RAVINES STABILITY & EROSION

The loss of moisture in slopes and ravines is a big issue for the stability of them. As well, the surface water infiltrations can generate high loads and unstable conditions. SS21 has been proved effectively to keep sand stable and to impermeabilize surface, giving more certainty to the Stability calculations of slopes.

Slopes and ravines in sandy soils are usually experiencing sliding during their lifetime. The impermeability, cohesion and strength that SS21 gives to the soil, reduces the risk to the slides. Our technical team is specialist in developing solutions for these conditions.

Erosion in Slopes generates preferential channels for the water flowing from the surface. These channels turn then into highly unstable conditions that increase considerably the risk of failure of the slope, and are a usual cause of sliding. There is no need to expose a slope/ravine to that risk, usually risking human life, infrastructure and the economic growing of cities and population. SS21 in a correct engineering design is the solution for this.





EROSION, STABILITY & DUST CONTROL

DUST

Dust in construction sites and roads is usually a problem for HSE and for road safety, as the dust can be inhaled by the people in site and surrounding populations, and the dust in the air generates bad visibility condition, main cause of accidents in some sites environments.

SS21 has been proved in Oil&Gas roads in deserted locations, and the reduction of Dust has been approved by the HSE managers of the site, considering it a good tool for avoiding risk for breathing and possible collisions due to the reduction of visibility.



TUNNELING, DRILLING, WATERPROOFING AND INJECTION

TUNNELING, DRILLING, WATERPROOFING AND INJECTION

SS21 is now being studied, modified and applied as required for highly complex engineering solutions. Our product is specially modified for each of these applications and to suit the project requirements, with addition of other of our products. These applications are experimental and are in continuous Research and Development with excellent results in real cases and in laboratory.

SS21 has been effectively applied to make "Temporary" casings while drilling in sand, with the adequate drilling techniques and tools, a good instrument for ground engineering and drilling companies.

Tunnel leaks has been controlled using SS21. Using SS21 as chemical grouting, high porosity loose soils has been turned into a more cohesive and strong column below foundations. Surrounding areas of pipes and manholes have been impermeabilized and sealed from groundwater. Open water channels in sand. All these applications are just a few of the new trends in SS21, a live chemical product for High quality solutions in Engineering

These special applications of our product, keeping us looking forward new improvements and solutions for challenges in Ground Engineering. Please do not hesitate in contact our Technical Team for more information about the possibilities of our product and to share some information about your projects.



Contact

Please contact our commercial representatives and technical experts for more information about SS21:

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Please note that we are working worldwide, not only in these locations.

