

CHEMILINK™ SS-108

Soil Stabilizing Agent

Description

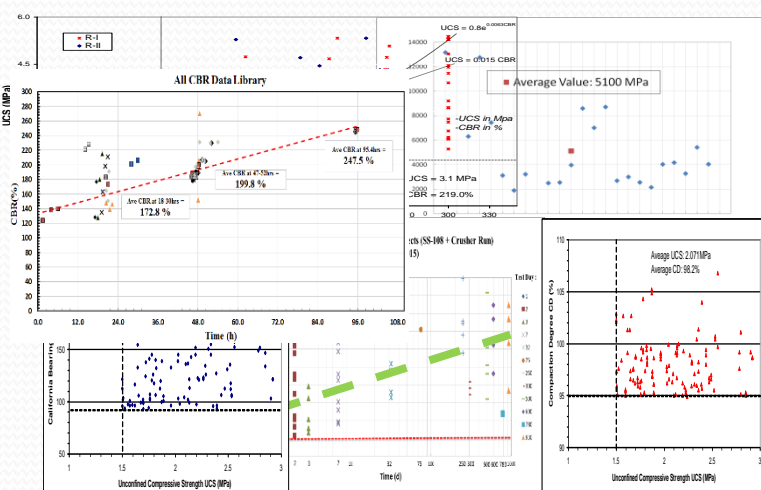
Chemilink™ SS-108 is a polymer modified cementitious high-tech material delivered in fine powder form. It has specially been developed since 1990's to improve/strengthen problematic soil conditions and/or foundations in tropical areas with frequent rainfall or high water table resulting in unsuitable, weak, or peaty soils. **The latest generation of Chemilink™ SS-108 which merged with SS-111 Stone Stabilizing Agent** includes similar but independent sub-series products to treat both most known soils and common crushed stones (or crusher runs) by methods of **Stabilization and Rehabilitation** at different conditions.

Chemilink™ SS-108 has been successfully utilized in hundreds of projects: airport runways, taxiways & parking aprons, highways, shipyard & container-yard platforms, public/private/industrial roads and other shallow base foundations in Asia, mostly in the South-East Asia region since 1994. It has been verified by many relevant authorities in Asia countries and endorsed in the public works specifications and tender documents.

Typical Technical Data Range (Stabilized Soils and Rehabilitated Crushed Stones)

Soil Types	Dosage (%)	CBR* (%)	UCS* (MPa)	Permeability (m/s) / Resilient Modulus (MPa)
Sandy/ Silty/ Clayey Soils/ Crushed Stones	2.0 to 4.0 1.5 to 3.0	30 to 300 120** to 300	0.7 to 5.0 1.5** to 5.0	10 ⁻⁷ to 10 ⁻¹¹ / Averagely, 5,000

* Generally at 7-day curing or 4-day soaking; ** Within 24-hour for crushed stones with recommended gradation.



Test Data Library



Stabilized Soil/Crushed Stone Samples



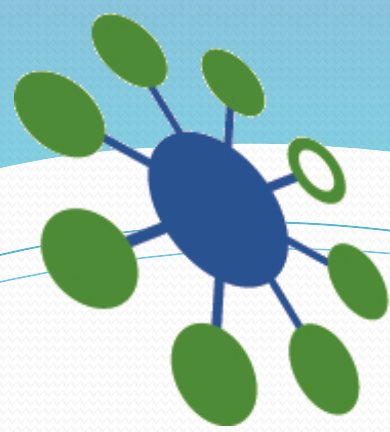
In-Situ Testing (CBR & MR)

Functions

- To improve and maintain the soaked strengths of various soils including crushed stones and, thereby to improve the bearing capacity of sub-grade or stabilized soils through binding of particles and immediate chemical reaction with soils;
- To form a semi-rigid platform with a certain tensile strength and thereby reduce total and differential settlements;
- To decrease the compressibility and permeability of soils and to achieve anti-cracking effect, thereby reducing or eliminating potential damages due to swelling, shrinkage and seepage;
- To rapidly rehabilitate the existing base course mostly with crushed stones and to achieve higher technical indexes; and
- To improve the long-term performances of stabilized soils and crushed stones.

Benefits

- Directly improve the in-situ soils or quarry materials by Stabilization & Rehabilitation and minimize the usage and transportation of imported fill materials, so as to protect the natural environment and reduce costs;
- To maintain the strengths of stabilized/rehabilitated soils in soaking conditions and achieve long-term pavement performances especially in low-lying, flood prone and swampy areas;
- Easy and fast soil/crushed stone stabilization/rehabilitation procedures enable contractors to complete the project in a shorter period of time than conventional construction method. Furthermore, the construction procedure takes into consideration of wet weather factors to eliminate possible complications caused by rain;
- The application of Chemilink™ SS-108 soil stabilization agent has been proven being highly effective and reliable with a proper quality control, which is cost-saving appr to treat most known soils and in-situ quarry materials;
- Its resulted "Semi-Rigid Platform Effect" can significantly reduce total settlements and minimize differential settlements;
- The anti-cracking effect, lower permeability and compressibility are the major factors to maintain long-term performance of pavement; and
- The product is green, environmentally and ozone friendly.



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Typical Applications

SS-108 stabilized soils and rehabilitated quarries can be used as base and sub-base courses and improved sub-grade for:

- Airport runways, taxiways, aprons and services roads;
- Highways, expressways, main national and city roads;
- Normal public roads;
- Rural/plantation roads and construction/temporary roads (without surface layer);
- Various road shoulders;
- Shipyards, container yards, ports, railways, loading/parking bays etc; and
- Other shallow base foundations.

Construction Procedure

- Spreading SS-108 product in powder form on the ground to be stabilized or rehabilitated.
- Mixing SS-108 **In-Situ** with soils or quarries, where better results may be achieved if using a **Central Mixing Plant**.
- Compaction as per normal.



Mechanical Spreading



Mixing by Stabilizer



Compaction 1



Manual Spreading



Mixing by Rotovator



Compaction 2

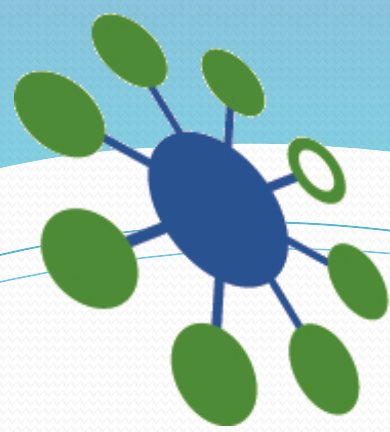
Package and Storage

Package: 1ton/bag, 20 bags/20ft, FCL ; or 25kg/bag, 800 bags/20ft. FCL

Shelf Life: 6 to 12 months from the date of manufacture when stored sealed in a dry and cool place

Precautions

Wear gloves and goggles while handling the product. Any contact with the skin or eyes should be washed off with clean water. In the event of prolonged irritation, seek medical advice. Powder products should be handled with care to minimize dust formation. Use a light mask if excessive dusting is unavoidable.



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Typical Project Examples of Soil Stabilization and In-Situ Stone Rehabilitation



Expressway in Brunei



Shipyard in Indonesia



Taxiways in Malaysia



Runways in Singapore



City Road in China



Industrial Access in India



Major Road in Myanmar



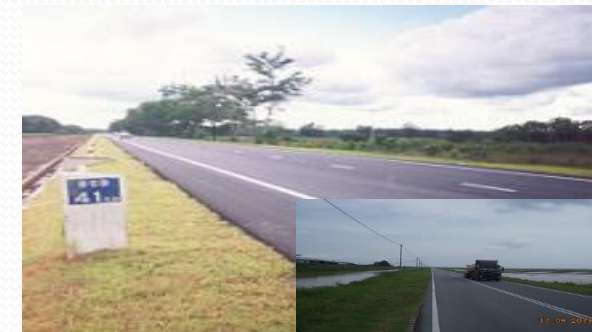
Public Road in PNG



Seaport



Severe Cold Region



Swampy Area



Rural Road

112020



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