

ECOBOND G

ECOBOND G for Soil Stabilization

ECOBOND GRADES

ECOBOND G is a low viscosity chemically reactive gel available as liquid. Having almost the same viscosity as water, ECOBOND G can permeate anywhere water can travel and cures within a controllable time frame anywhere from 5 seconds to ± 10 hours. Once it cures, it creates an effective, long-lasting water barrier while providing superb soil stabilization. It will control ground water and stabilize soil permanently.

ECOBOND GS is available in a single shot system or multiple shot system and can also be designed with cement grouts to reduce the costs. Large scale projects will often require significant volumes of grout to be injected. ECOBOND G will often complement the cement-type grouts and in some cases will be the predominant grout used for a particular situation.

ECOBOND GS1, single shot system, has an advantage of controlled radius and penetration at required set time but may be severely hampered if water is present where necessary precautions need to be taken with additives for such conditions.

ECOBOND GSM, multi shot system, has high strength gain in sandy soils of approximately 500 psi but has a problem where control of delivery is not easily possible.

ECOBOND GA grouts are "true solution grouts" which are free of suspended solids and have extremely low viscosity - similar to water. The ECOBOND GA family consists of acrylamide and acrylates. Each type requires a base resin to be mixed with a catalyst in order to create a gel matrix within a soil or rock with a controllable gel time. ECOBOND GA changes from a liquid to a solid in a controllable gel time ranging from 3 seconds up to 10 hours. The life span of ECOBOND GA is estimated to be greater than 300 years

We also have other systems based on bentonite clays, polyurethane and many others but they are all based on the specific requirement of the soil and climatic conditions.

USES OF ECOBOND G

ECOBOND G is a grouting technique that transforms granular soils into sandstone-like masses, by permeation with a low viscosity grout. The soils best suited for this technique are sands with low fines content. Typically, a sleeve port pipe is first grouted into a predrilled hole. The grout is injected under pressure through the ports located along the length of the pipe. The grout permeates the soil and solidifies it into a sandstone-like mass. The grouted soil has increased strength and stiffness, and reduced permeability. ECOBOND G has been used to underpin existing foundations, create excavation support walls, create water cut off walls and stabilize soils for tunnelling.

For underpinning applications, ECOBOND G offers the advantages of being easily performed where access and space is limited, and of not requiring a structural connection to the foundation being underpinned. A common application of ECOBOND G is to provide both excavation support and underpinning when an excavation is planned immediately adjacent to an existing structure. Usually, ECOBOND G can be accomplished without disrupting normal facility operations.

ECOBOND G equipment is well-suited for tunnelling applications in urban environments, whether for stabilizing soil around break-ins or break-outs, or for mitigating settlement of overlying structures within the influence of the tunnel alignment.

For Further Enquiry

TECHNOKOTES

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