



EnhancIT® 100

Physical Data:

Appearance: White free flowing powder and granules
Odor: Slightly Sweet Odor
pH: NA
Freeze Point: NA
Specific Gravity: 1.00-1.01 (Water = 1.0)

Description & Function:

EnhancIT 100 synthetic polymer is a key constituent for KB's Earth Stabilization Systems. EnhancIT 100 works in conjunction with the SlurryShield® fluid to create a polymer film at the formation wall. EnhancIT 100 instantly increases the slurry viscosity, reduces fluid loss in porous ground, assists in stopping the hydration of clays and shales and assists in insuring the Synthetic Membrane forms properly to exert positive differential pressure against the formation sidewalls.

General Application Instructions:

EnhancIT 100 should be mixed initially at a minimum rate of 0.2 to 1.0+ kg/m³ of fresh or recycled water or slurry pretreated with ProTek 100 to raise the pH above 10.0. For larger projects this should be done in a properly designed mixing tank (see KB's "Mix Tank Diagram" for specifics). On smaller projects or highly mobile projects, such as power lines, EnhancIT 100 may be applied at the point of excavation. Typical addition rates are as follows:

Formation Type	Average EnhancIT 100 Dosage			Typical Marsh Funnel Visc.
	kg/m ³	lbs/1000 gals	lbs/yd ³	sec/qt
Clay & Shale	0.05-0.1±	0.417-0.835	0.084-0.169	60-90+
Silt & Fine to Medium Sand	0.07-0.15+	0.584-1.252	0.118-0.253	65-100+
Coarse Sand to Pea Gravel	0.1-0.25+	0.835-2.086	0.169-0.422	75-100+
Gravel to Cobbles	0.15-0.5+	1.252-4.173	0.253-0.844	85-100+

Additional EnhancIT 100 may also be introduced at the point of excavation or into the mix tank or agitated slurry storage tanks. The addition of small quantities of EnhancIT 100 at the excavation provides a rapid increase in viscosity to stabilize highly permeable soils and increased chemical adhesion within low strength soils. When adding EnhancIT 100 at the point of excavation, please pour EnhancIT 100 slowly into a KB Eductor feeding into an adequately flowing stream of slurry emptying into the excavation. EnhancIT 100 may also be added directly to the stream of fluid flowing into a pile while the excavation tool is one meter (3 feet) below the surface of the slurry and rotating to form a vortex within the slurry column. Avoid the agglomeration of EnhancIT 100 into "white gel balls" in the slurry by slowly sifting product into the fluid stream. Feeding EnhancIT 100 too quickly with lack of proper agitation causes the agglomeration of polymer particles and wastes material. After completing the addition of EnhancIT 100 to the excavation, reciprocate the digging tool from the top of the excavation to the bottom to assist in proper distribution throughout the slurry column. The slurry viscosity within the excavation should never be allowed to drop below 55 seconds per quart regardless of what type of soil is being excavated.

Recovered slurry is typically treated at a minimum rate of 0.02 to 0.50+ kg/m³ of slurry. The initial treatment should preferably be done in the mixing tank allowing for further addition at the point of slurry entrance into the next excavation. At least one sedimentation tank is always recommended for recaptured slurry to pass through prior to the mix tank and the supplementation with fresh EnhancIT 100.

The dosage rate of the EnhancIT 100 synthetic polymer in the initial make-up water should err on the side of caution and use the higher levels recommended in the dosage chart. Only after the slurry has been established and a secure dosage and viscosity obtained should the dosage be reduced. If low hydrostatic conditions are encountered where the water table is less than 3 meters (10 feet) beneath the slurry level, the specific gravity of the slurry should be in-

EnhancIT® 100



creased as required using WeightItt or a combination of WeightItt™ and SandSeal™ to raise the slurry S.G. accordingly. Due to the unique characteristics of the KB's Earth Stabilization System as compared to bentonite, several key operational procedures should be modified from bentonite systems. These modifications will have a major impact on the overall effectiveness and successful use of KB International's Earth Stabilization Systems. For smaller projects, please consult KB International's "General Operating, Product Addition, and Testing Procedures". For larger or more complicated projects, please contact KB International for specific project planning.

Special Operational Precautions and Instructions:

The specific gravity of the slurry should not be allowed to exceed 1.04 under normal operating conditions. If low hydrostatic conditions are encountered where the water table is less than 3 meters (10 feet) beneath the slurry level, the specific gravity of the slurry should be increased as required using WeightItt or a combination of WeightItt™ to raise the slurry S.G. accordingly.

Due to the unique characteristics of a KB Earth Stabilization System as compared to bentonite, several key operational procedures should be modified from bentonite systems. These modifications will have a major impact on the overall effectiveness and successful use of KB International's Earth Stabilization Fluids. For smaller projects, please consult KB International's "**General Operating, Product Addition, and Testing Procedures**". For larger or more complicated projects, please contact KB International for specific project planning.

Packaging:

EnhancIT 100 is available in: 10 kilo / 22 lb. resealable plastic pails

Availability:

EnhancIT 100 is available from KB International's warehouses in these geographical areas:

- **Charleston, SC USA**
- **Dubai, UAE**



Technology to Build On!™

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