



Product: KobbleBlok®

Physical Data:

Appearance: Opaque to White free flowing granular solid
Odor: Odorless
pH: NA
Freeze Point: NA
Specific Gravity: 1.00-1.01 (Water = 1.0)

Description & Function:

KobbleBlok® is a specialty polymer which rapidly swells to form various size deformable globules. These polymeric swollen globules seek porous zones and help the SlurryPro® or SlurryShield® System to control fluid loss by filling these larger pores or voids assisting in the formation of the SlurryPro membrane. By assisting in the development of the SlurryPro membrane at the formation interface KobbleBlok plays a key role in excavation stabilization of low cohesion high conductivity soils. KobbleBlok can shut off fluid loss in very porous environments, such as cobbles and boulders. It should be incorporated into a SlurryPro System when SlurryPro MPA, LA-1, SandSeal and Impac will not provide sufficient control of fluid migration into the sidewalls.

General Application Instructions:

When porous formations are expected or encountered dry KobbleBlok should be introduced into the slurry system. The addition of appropriate quantities of KobbleBlok to the slurry provides an abundance of deformable gels to control fluid loss in porous formations. 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. Typical addition rates are as follows:

Formation Type	Average KobbleBlok Dosage			Typical Marsh Funnel Visc.
	lbs/cu yd	lbs/1000 gals	kg/m3	sec/qt with Advised CDP
Fractured Clay & Shale	0.017-0.127	0.083-0.626	0.01-0.075	60-75
Silt & Fine to Medium Sand	0.034-0.169	0.167-0.835	0.02-0.1	65-120
Coarse Sand to Pea Gravel	0.051-0.337	0.250-1.669	0.03-0.2	75-150
Gravel to Cobbles	0.051-0.506	0.250-2.504	0.03-0.3+	85-150+

When adding KobbleBlok at the point of excavation, please pour KobbleBlok slowly into a KB Eductor feeding into an adequately flowing stream of slurry emptying into the excavation. SandSeal should always be added through the KB Eductor to the stream of fluid flowing into the excavation when fluid loss occurs as it works in conjunction with KobbleBlok to control fluid loss. 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 rate of 40% to 75% of that to fresh water or fresh slurry. At least one sedimentation tank is always recommended for recaptured slurry to pass through prior to the mix tank and the re-addition of KobbleBlok.

The dosage rate of the KobbleBlok 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.

Additionally, KobbleBlok is a specialized fluid loss additive for use in a SlurryPro or SlurryShield system. The KobbleBlok may also be added directly to slurry in an excavation in pre-hydrated or swollen form to assist in rap-



id control of unexpected fluid loss. General guidelines for adding pre-hydrated KobbleBlok are; add one to two tablespoons to a 5 gallon (20 liter) bucket and add fresh water. Stir until gels begin to swell out. Allow to stand and hydrate for 10 to 15 minutes whenever possible. Then dump the hydrated product directly into the slurry in the excavation, mix tank or at the slurry storage tanks. Continue to add buckets of hydrated KobbleBlok to the slurry and the excavation, in combination with SandSeal, CDP, LA-1-D and other appropriate SlurryPro additives, until the desired fluid loss control is reached. When prior knowledge of encountering a porous formation during excavation exists it is best to incorporate adequate quantities of KobbleBlok directly at the mix plant. It is also recommended to have several 5 gallon (20 liter) pails per made and on hand by the excavation. A drum cut in half or a large trash can also be substituted for the pails.

When excavating more challenging formations, KB International's System additives including Instafreeze should be utilized in combination with a SlurryPro or SlurryShield system to increase slurry stabilization performance. The more challenging the formation type the more requirements for various SlurryPro Specialty Additives.

Unusual site conditions may arise during actual excavation, in which case the recommendations from KB technical personnel must always be followed.

Special Operational Precautions and Instructions:

The specific gravity range for the slurry should be maintained from 1.01 to 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 WeightIt or a combination of WeightIt™ and SandSeal™ to raise the slurry S.G. accordingly.

Due to the unique characteristics of KB's SlurryPro and SlurryShield systems 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 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.

Packaging:

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

Availability:

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

Charleston, SC USA	Seattle, WA USA	England	Hong Kong
Cerritos, CA USA	San Francisco, CA USA	Italy	

KB International LLC

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For More Information:

Additional information on all aspects of the SlurryPro CDP Vinyl System is available from KB International LLC on request. General Operating Procedures provide more detailed recommendations for the use of KB's System in bored piles, diaphragm walls, and other applications.

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