Product Technical Sheet

Product: SlurryPro® LA-1-D™

Physical Data:

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

Description & Function:

SlurryPro® LA-1-D™ synthetic polymer is a key constituent within KB's Earth Stabilization Systems. SlurryPro LA-1-D works in conjunction with a CDP™ system or SlurryShield® fluid to create a polymer film at the formation wall. LA-1-D instantly increases a CDP 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:

SlurryPro LA-1-D should be mixed initially at a minimum rate of 0.2 to 1.0+ kg/m^3 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, LA-1-D may be applied at the point of excavation. Typical addition rates are as follows:

Formation Type	Average SlurryPro LA-1-D Dosage			Typical Marsh Funnel Visc.
	lbs/cu yd	lbs/1000 gals	kg/m3	sec/qt with Advised CDP
Clay & Shale	0.084-0.169	0.417-0.835	0.05-0.1+	60-75
Silt & Fine to Medium Sand	0.118-0.253	0.584-1.252	0.07-0.15+	65-120
Coarse Sand to Pea Gravel	0.169-0.422	0.835-2.086	0.1-0.25+	75-150
Gravel to Cobbles	0.253-0.844	1.252-4.173	0.15-0.5+	85-150+

Additional LA-1-D 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 LA-1-D at the excavation provides the following benefits: a rapid increase in viscosity to stabilize highly permeable soils and increased chemical adhesion within low strength soils. When adding SlurryPro LA-1-D at the point of excavation, please pour LA-1-D slowly into a KB Eductor feeding into an adequately flowing stream of slurry emptying into the excavation. SlurryPro LA-1-D 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 CDP into “white gel balls” in the slurry by slowly sifting product into the fluid stream. Feeding LA-1-D too quickly with lack of proper agitation causes the agglomeration of polymer particles and wastes material. After completing the addition of LA-1-D 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/m^3 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

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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 SlurryPro LA-1-D.

The dosage rate of the SlurryPro LA-1-D 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.

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 the SlurryPro CDP Earth Stabilization System as compared to 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 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:

SlurryPro LA-1-D is available in: 10 kilo / 22 lb. resealable plastic pails

Availability:

SlurryPro LA-1-D is available from KB International's warehouses in these geographical areas:

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

KB's SlurryPro® CDP™ System, including additives, and SlurryShield® Technology have been awarded four US Patents, No. 5,407,909, 5,663,123, 6,248,697 and 6,897,186 as well as various corresponding international patents. Additional patents are currently pending.

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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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