GGVSV

Wet and Dry Sprayed CAC Mortar

Description.

GGVSV is a proprietary Calcium Aluminate mortar designed for the protection of sanitary sewer structures. It is ideally suited to rehabilitate sewer infrastructure damaged by Biogenic Corrosion. GGVSV contains both Calcium Aluminate Cement and Calcium Aluminate Aggregate and is fully compatible with most sewer environments.
Unlike most CAC mortars it has a higher Alumina content for the aggregate, further increasing it's protective mechanisms. This along with selected additives helps reduce heat generation and shrinkage during and after application.

Typical Uses

- Trunk Sewers
- Manholes
- Wet Wells
- STP structures and channels

Key Features

- Australian made and owned.
- Worker friendly
- Shrinkage compensated.
- Inhibits bacterial growth.
- High Neutralisation capacity.
- Contains no plastics or biproducts.
- Contains no VOC's
- Adheres to damp concrete.

Chemical Composition of main Ingredients (CAC fraction)

Composition	Typical % (Weight)
Al2O3	43-49
CaO	31-47
SiO2	2-6
Fe2O3	7-13

Physical Properties

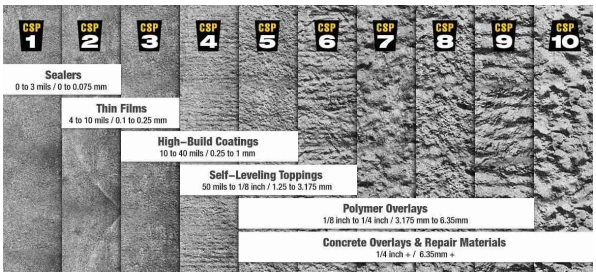
Compressive Strength (MPa) AS 1478.2	
6 hours	>20
24 hours	> 50
28 Days	> 70
Flexural Strength (MPa)	
24 hours	>6
28 Days	>8
Indirect Tensile (MPa) @28 days	>2.5
Drying Shrinkage @56 days	<600

Notes on Shrinkage
Cemspec generally uses/prefers Laser shrinkage measurement which tests samples immediately after casting. As CAC is an extremely reactive cement, our experience shows that with testing via the Australian standard most shrinkage is not actually measured.

Application Instructions

Preparation

Multiple methodologies can be utilised to clean and profile the surface. Whether by High Pressure water or grit blasting or mechanical scabbling, the method must remove any dust, unsound or contaminated material, fats, grease, corrosion deposits. A surface profile can be assessed with CSP Samples and should be in the range of 7-9 at a minimum depending on the size of the appliction.



Once the minimum profile is achieved and any leaks or running water is removed, the substrate should be thoroughly saturated with clean water prior to the spray application of the GGVSV. A saturated surface dry condition is ideal. GGVSV should not be applied over running or ponded water.

GGVSV is best applied via low pressure wet spray application if a smooth surface is desired. Dry Gunite methods can also ve used to easily convey GGVSV over long distances in specialised hose. Remote application is possible with purpose made robotic Equipment.
Manholes or alike are well suited to spinning head application.

Alteration of standard setting times

GGVSV can be retarded or accelerated for extreme weather conditions. Surface accelerators are especially useful when Rapid Return to Service is desirable.

Finishing

For Gunite application, it is best to cut back the surface by bar or specialised rake. Hand trowelling can disturb the bond of freshly placed mortars and lead to a drummy surface. Spraying water over the freshly applied mortar is also ill advised as it increase the water to cement ration at the surface, reducing abrasion resistance and increasing shrinkage.

Curing

We do not advise the use of curing compounds. Water will ensure that temperature and shrinkage reduced to a minimum. Apply misting or wet hessian or similar immediately after initial set. Avoid prolonged use of fans for ventilation as this will preternaturally dry out the surface leading to reduced performance. Curing should persist for as long as possible or preferably for at least 24 hours.

Cleanup

All equipment should be thoroughly cleaned with water as soon as practically possible after use.

Safety

- Always refer to the Safety Data sheet before use.
- Wear appropriate PPE
- Avoid contact with skin and eyes.
- Avoid inhalation of any dust.

Packaging

20kg bags. 50 per pallet

1mt Bulk bags