

Keminject VC



One Component Cementitious Injection Slurry to Stop Seepage Through Concrete and Masonry by Filling and Sealing Cracks and Voids

Description	Keminject VC is a ready-to-mix powder based on special cement within a synergistic blend of special binders and additives. The mix contains no chlorides, ferrous metal, or other deleterious materials. The product is pre-blended and ready for mixing on-site to produce an injectable slurry which after filling and sealing voids and cracks wider than 0.5 mm, in concrete and masonry, will expand insuring optimum compactness and strength. If injected against hydrostatic pressure, it will stop water leakage through concrete and masonry.
Where to use	• Stopping seepage through concrete and masonry by injecting against hydrostatic pressure. • Injection into concrete cracks and under plates or slabs. • Regeneration of porous and spongy concrete. • Consolidation of masonry structures.
Advantages	• Decreased permeability as well as characteristics improvement over 10 continued years. • Accelerated setting and hardening. • Non-shrink and will expand after application. • High fluidity. • Thin cracks injection, width > 0.5 mm. • High mechanical strength. • Excellent adhesion to concrete. • Excellent resistance to sea water and sulfated water. • Non-toxic, suitable for food industry and potable water. • Cost effective compared to resinous grouts. • Easy to apply, saves time .
Properties	
Water/powder ratio	0.35
Gel Time @ 23 °C	30 min
Setting Time @ 23 °C	120 min
Fresh Density Kg / L	1.92
Surface Preparation	• The concrete along the crack should be clean, free from dust, loose particles, grease, oil or any other foreigner matter. • Loose materials, such as un-bonded masonry mortar, loose bricks or delaminated concrete must be removed from the sides of the cracks in a minimum range of 5 cm. • Drilling injection holes: Drill the hole (13 or 18 mm) into the crack in conjunction with V-grooving of the cracks to a depth of 2 – 3 cm below the apex of the V-grooved section. • Clean the hole and remove the drilling dust before placing the pipe nipple Sealing the face of the crack. • After placing the pipe nipples, the V-grooving is sealed with Waterplug • (See separate data sheet) to ensure fixation of the pipe nipples, quick setting and hardening, and tightness. • Testing the system and pre-watering: If seepage was occurring from a crack or void, make sure that water is leaking from the nipples only. • If the crack was dry, dampen it by injecting clean water to clean it. Check the function of the whole system by the use of water. Pre-water the sides of the crack at the same time.

Mixing	• Fill the complete bag of Keminject VC under slow mixing into the measured quantity of water (2.25 Liters) per bag and machine-mix the material at a fast speed • (1500 – 2500 rpm) for 2 – 3 minutes. • Until it is homogeneous. • Preferably use a metallic mixing pot and a drilling machine.
Application	• Pour the ready injection grout through a fine sieve into another pot. • Keminject VC can be injected in either the low or high-pressure method. • Usually the injection in concrete is made with a pressure of 2 – 3 bars, when the crack sides are wet or 3 – 6 bars, when they are dry. • If the crack is vertical, the injection process should begin with pumping grout into the entry port at the lowest elevation until the grout level reaches the entry port above. The lower injection port is then capped, and the process is repeated at successively higher ports until the crack has been completely filled and all ports have been capped. • For horizontal cracks, the injection should proceed from one end of the crack to the other in the same manner. • The crack is full if the pressure can be maintained. If the pressure cannot be maintained, the grout is still flowing into unfilled portions or leaking out of the crack.
Packaging	20 Kg Bags.
Theoretical coverage	After mixing with water, the 5 Kg bag yields about 2.6 – 2.8 liters of injectable slurry depending on the water addition
Shelf life & Storage	12 months in its sealed bags stored in normal conditions.
Precautions	• Protect the Keminject VC bags from direct sun rays or any other source of heat before use, this can lead to a very fast setting. • Avoid working on hot substrates and mixing with hot water. The temperature range for use is 5 °C – 30 °C. • Active cracks should be treated separately. Clean all working equipment and tools as soon as possible with water.
Health and Safety	• Use goggles, gloves, and a breathing mask when applying. • Apply forced ventilation in confined spaces. • Remove splashes from the skin with hand cleaner or soap and water. • Eye splashes are to be washed with plenty of water. • If ingested seek medical advice. • Do not breathe or inhale the mist. • When spraying, wear an air mask.
Additional Information	PROKEM provides the construction industry with a comprehensive range of construction chemicals and specialty products answering the queries of modern engineers for trouble free durable structure. PROKEM designs tailor made products should there be critical application that requires specific properties rather than our main range. For our customer's satisfaction. PROKEM reserves the right to change the properties of its products. All orders are accepted subject to our current term of sale & delivery. Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request. PROKEM extends technical services to include after-sales support to assist users in the proper handling of our products.