KALMATRON® Corporation

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KALMATRON®

KALMATRON® KF-G APPLICATION

KALMATRON® KF-G is a new generation of cement rock rehabilitation technology for density and strength restoration with sealing of shrinkage cracks. It is a necessity to determine the nature of the cracks before KF-G application to avoid product loss. Shrinkage cracks are "V" shaped mostly, which means they have a "bottom" with predictable KF-G consumption. Structural cracks may have no "bottom" at all where different technique of KF-G application is described below.

■ HEALING OF SHRINKAGE CRACKS

1. **This part of technology is developed for sealing of shrinkage cracks with up to 2 mm in width.**
2. **Take of 300 Grams of KF-G dry powder and dissolve with 1 Liter of water to apply on 1m^2. Or mix 3 Lbs of KF-G with 1 GL of water to cover 40 SF (7.72 m^2).**
3. **Concrete surface should be dry about 6% and cleaned from removable contaminations.**
4. **Apply KF-G solution by spray, brush, or broom at 1.5 Liter/ m^2 or 33 OZ/11 SF.**
5. **Hair-thin cracks will disappear in 12 hours. Wider cracks might been seen yet, but liquid impermeability will be achieved.**
6. **Clean concrete surface with water on the third day after KF-G application.**
7. **Treated concrete surface may look the same, but strength and impermeability will be restored.**

■ HEALING OF STRUCTURAL CRACKS

8. **This technology is developed for sealing cracks with width over 2 mm.**
9. **Mix 300 Grams of KF-G, 1 Liter of water, and 1000 Grams of any cement to a slurry consistency.**
10. **Apply onto cracked area with polishing-like technique to fill up the cracks, but do not attempt to develop layer coat.**
11. **For contaminated cracks use trowel to press down KF-G slurry into them.**
12. **KF-G slurry completely hardens in 12 hours.**

■ EXPECTED RESULTS

1. **Appearance of concrete surface does not suppose to be changed.**
2. **Surface abrasion resistance is up to 30% on third day.**
3. **Compressive strength is higher by 25% to 30% on seventh day.**
4. **Liquid impermeability is twice higher than previous measurement after 4 hours.**
5. **Traces of original efflorescence are washable with water without its reappearance.**
6. **Resistance to salt, acid, sugar, alkalis, and oil resistance is higher by at 30% to 50%.**
7. **Rehabilitation of severely aged concrete begins from its carbonized surface into its depth at 2 mm to 3 mm, which creates self-sacrificial layer. It means, that that sacrificial layer should not be counted as a mass loss during of corrosion resistance evaluation during of lab test procedure.**