

**TECHNICAL DATA SHEET KALMATRON® KF-B**

**U.S.A. Patent 5,728,428**

**KALMATRON® KF-B** as a protective and remedial coating penetrating into the concrete structure by at 15 cm or 6” designed for protection of concrete and masonry building structures as an ionic implant onto the structures in damp conditions to restore liquid/vapor impermeability, corrosion and freeze-thaw resistance, to stop rebar rusting and to rebuild structures by gluing of they broken parts.

In a case if KF-B layer damaged, protected structure stays impermeable and densified.

**KF-B** is best for repair of water supply and sewer systems; marine and fortification structures; facilities of the chemical and agricultural industries. Applied as a layer, it has no expansion in both the plastic and hardening phases without compensation of water. Layer of KF-B is a water impermeable under the hydraulic pressure at 14 [bar] and stable to aggressive environment at pH of 1.

**KALMATRON® KF-B APPLICABILITY BY IMPERMEABILITY**

<b>W Bar = 14.5 PSI</b>	<b>TYPICAL APPLICATION</b>	<b>APPLICABILITY</b>
10÷14 [bar]	Manholes, Chemical facilities, Dams, Pump Stations, etc.	●
6÷10 [bar]	Piers, Mines, Oil Plants and Refinery, Sewer Collectors, etc.	●
4÷6 [bar]	Pools, Septic Tanks, Fountains, Drainages, etc.	●

**KALMATRON® KF-B CONSUMPTION of layer at 3 mm thick**

<b>KALMATRON® KF-B BATCH INSTALLATION</b>	<b>CONSUMPTION PER A BAG</b>		<b>CONSUMPTION PER AREA</b>	
	<b>LB</b>	<b>Kg</b>	<b>LB per 1 SF</b>	<b>Kg per 1 m<sup>2</sup></b>
1 bag of KALMATRON® KF-F	50	22.7	.99	4.8
Water per 1 bag ≈ 1.0 GL or 3.75 Liters	8.33	4.12	.17	0.81
<b>Total:</b>	<b>58.33</b>	<b>26.82</b>	<b>1.16</b>	<b>5.61</b>

**PREPARATION & APPLICATION**

1. Add **1** part of water into **4** parts of KF-B powder by the volumes and mix for ½ minute. That ratio might be gradually corrected for the different spray equipment on a job site. The consistency of mixed KF-B batch is close to the heavy mortars.
2. Apply with minimal range of layer thickness at **3 mm to 5 mm** or at <sup>3</sup>/<sub>25</sub>" to <sup>1</sup>/<sub>4</sub>".
3. Use KF-B at a minimum temperature on the concrete surface not below of 23°F (-5°C).
4. Hardening time is at 45 to 70 minute in normal conditions.

**ESSENTIALS AND CURING**

1. Applicable in damp conditions only.
2. After application, do not provide curing procedure.
3. Do not spray water on a freshly applied KF-B surface.
4. Do not cover fresh KF-B with films or blankets.
5. Average of expected results by 3 days:

W = is at 1,550 PSI or W12 - water impermeability;  
 ρ = 2300 [kg/m<sup>3</sup>] - density;  
 α = 10.5 [10<sup>-6</sup> m/m°C] - coefficient of linear thermal expansion;  
 λ =1.93 [W/m °C] - coefficient of thermal conductivity;  
 E = 3.45 x 10<sup>4</sup> MPa = 3 x 10<sup>4</sup> kg/mm<sup>2</sup>=30 kg/mm<sup>2</sup> - Young modulus;

**Consumption of KALMATRON® KF-B**

Thickness mm	Consumption of KF-B, Kg/m <sup>2</sup>
<b>3.00</b>	<b>4.8</b>
<b>4.00</b>	<b>6.4</b>
<b>5.00</b>	<b>8.0</b>

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