

KALMATRON® KF-G TECHNICAL DATA SHEET

General Application

KALMATRON® KF-G is a new generation of cement rock rehabilitation technology for density and strength restoration with sealing of shrinkage cracks. Concrete treated by KALMATRON® KF-G is water impermeable under the hydraulic pressure at 8 bar and stable to aggressive environment at pH of 2. Enhancing of abrasion resistance and radiation attenuation have been ranged from its refusal to the brand new concrete surface.

Appearance: white crumbled powder;

Density: 1350 Kg/m³;

Solubility: 94%;

Specific Gravity: 2.16;

pH: 9 ÷ 11;

Decomposition on air: 0.08% / 36 hours.

KALMATRON® KF-G APPLICABILITY BY COMPRESSIVE STRENGTH

CONCRETE HARDNESS	PSI	TYPICAL APPLICATION	SHIELDCRETE APPLICABILITY
Very hard	10,000 or more	Nuclear Plants, Loading decks	●
Hard	6,000 - 8,000	Bridges, Piers, Chemical facility	●
Medium	4,000 - 6,000	Roads, Housing projects	●
Soft	3,000 or less	Sidewalks, Patios, Parking lots	●

KALMATRON® KF-G CONSUMPTION

The consumption of KF-G for healing of concrete cracks depends on the nature of the origins. 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 in “Application Instruction”. To be sprayed, KF-G must be dissolved with water as it shown below.

KALMATRON® KF-G BATCH INSTALLATION	CONSUMPTION PER A BAG		CONSUMPTION PER AREA	
	LB	Kg	Gallon / SF	Liter / m ²
1 BAG 50 LB or 22.7 Kg	50	22.7	20 / 688	75.7 / 64
Water per 1 bag ≡ 20 GL or 75.7 Liters	182.5	83		
Total:	232.5	105.7		

ESSENTIALS AND CURING

1. After application, do not provide curing procedure and do not use curing compounds.
2. Do not spray water on a fresh KALMATRON® KF-G treated surface.
3. Do not cover fresh KALMATRON® KF-G with films or blankets.
4. Average of expected results by at 24 hours to 7 days.

**Mohs' Scale of Hardness
of materials at the age after 100 days**

Material	N° by the Mohs' scale		
	Original Surface	Treated by KF-G	Polished 1 pass
Ordinary Stucco	2.5 ÷ 3	4+	n/a
Ordinary Concrete 5,000 PSI	4.5 ÷ 5.5	6.5	7 +
High Alumina Concrete	6 ÷ 6 +	7+	8
PATCHCRETE – 5 MM	5+ ÷ 6	n/d	8 +
SHIELDCRETE – 15 MM	7 +	n/d	7.5 +
PLASTCRETE- 15 MM	8 +	n/d	8 +

The data above is not linear, but exceed experimental results of the ASTM C779 / C779M - 05 “Standard Test Method for Abrasion Resistance of Horizontal Concrete Surfaces by rotating – cutter drill press” and ASTM C 418 “Method for abrasion resistance of concrete by sandblasting.”

n/a - is for “Not Applied”
n/d – is for “No Data”

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