



KALMATRON KF-I

Main characteristics of KF-I

Mass per unit of volume, kg/cubic meter	800
Compressive strength, Mpa, no less than	2,5
Flexural strength, Mpa, no less than	0,5
Adhesion to the concrete surface, Mpa, no less than	0,2
Freeze-thaw resistance grade, cycles, no less than	F50
Shrinkage, 28 days after hardening	no cracks
Heat conductivity, Wt/m ² K (kilo-calories / hour ² meter ² °C), not exceedin temperature: 5 ± 5 °C	0,12
125 ± 5 °C	0,14
Mortar flaw , centimeters	5 ... 7
Vapor emission resistance, %	90 ... 95
Initial setting, hours, no less than	2
Sliding resistance on vertical surfaces	no sliding

INTRODUCTION

- KALMATRON® KF-I is THERMORESISTANT COMPOUND for heat protection designed to perform high heat resistance and liquid impermeability as a coating on a roofs, floors, boiled water supplies pipes, heating joints, etc.
- The KF-I is a heat proofing protective composition. It is a dry asbestos cement mix with the Kalmatron® technological additive, which is manufactured with special equipment. Before application it must be premixed with water.
- Technological painting – if required – will improve liquid impermeability over W4.
- Provides durable coat with highest resistance to atmospheric and biological effects.
- KF-H is applicable by brush or trowel in dry or damp environments as well.
- Provides rock solid and rough surface with high compressive strength, abrasion resistance, liquid impermeability, vapor transmission, and freeze-thaw resistances;
- Perfect heat proof with high structural strength;
- High freeze and thaw resistance with durability up to 25 years

ESSENTIALS

- KF-I designed for coating on heat exposed or heat releasing concrete, metal and masonry structures. For instance, application of KF-I for isolation of metal pipes caring boiled water reduced heat lost at least at 10 to 15% with lower cost per square unit.
- High strength, freeze resistance, as well as unattractiveness for the modern vandals (unlike the metal insulation) allows to increase by several times the whole heat proofing system service period up to 15 years. Compared to other similar heat proofing materials, "Kalmatherm" with lower density has a higher heat proofing ability and strength, with simple maintenance.
- This product is welcomed for water proofing of structures that specifically designed for unstable in humid and temperature environment of civil, public and industrial buildings and structures.



DEMO OF KF- I

Sequence of application:

1. Place the regular mineral wool plate insulation;
2. Set a metal wire net frame over it;
3. Set the face templates in locations of designed thermal-joints equal to the joints in height;
4. Prepare KF-I mix by mixing with water;
5. Apply KF-I layer on the surface of the pipeline and smooth it with a metal or plastic trowel;
6. Cover fresh KF-I layer with a plastic film hermetically to prevent over drying for 3 days;
7. Apply finishing layer of paint, polymer, or stucco materials.

Comparative characteristic of the heatproofing materials

Comprising products	Mass per unit volume (kg/m ³)	Thermal conductivity Kcalorie / m ² h ² Degree	Compressive Strength (MPa)	Flexural strength (MPa)	Designed durability (years)
Asbestos gypsum plaster	>900	0,24	1,6	0,35	4 – 5
Diatomaceous-silica asbestos plaster	900	0,23	1,9	0,4	4 – 6
Asbestos cement plaster	1400	0,45	2,5	0,5	4 – 5
Aerated concrete	≥ 600	0,22	0,95	N/a	N/a
Cellular concrete + quartz sand	800	0,29	1,5	N/a	N/a
The KF-I composition	800	0,12	3,0	0,6	15 to 25