KALMATRON®

APPLICATION INSTRUCTION OF KF-αβγ BY COATING

KALMATRON® KF-αβγ is a cementitious radiation shielding material for attenuation of remedial and industrial radiations of the building and structures and decontamination of radioactively contaminated environments applicable as an admixture to the concrete/grout mixes. KF-αβγ is applicable by any known coating technique of shotcrete, gunite or stucco application.

■ KF-αβγ BATCH PREPARATION

1. Take the batch of KF-αβγ per square unit of concrete surface in accordance with Table 1.
2. Add **1** part of water into **4** parts of KF-αβγ by the volumes and mix it for $^1/_2$ min.

■ RECOGNITION of KF- αβγ LAYER THICKNESS

1. Before KF-αβγ application, it is a necessity to establish thickness of KF-αβγ layer to reduce radiation penetration until required level of governed safety.
2. Apply KF-αβγ layer beginning from **5 mm.** Make first measurement. If it is not enough, apply another **5 mm** and etc., gradually achieving of stable resistance to radiation penetration.
3. Apply a DIFFRACTION technique to increase attenuation by 20%.
4. The probe area of application must be no smaller than 30 x 30 (cm).

Consumption of KALMATRON® KF-αβγ
Table 1

Thickness of Layer, mm	Consumption Kg / m²
5.00	17
10.00	34
15.00	51
20.00	68

■ PREPARATION OF SURFACE and CURING

Before KF-αβγ application, wet the targeted area of application with water. Use wire mesh for KF-αβγ layer thicker than 45 mm. Always apply wire mesh on the wooden, plastic or metal structures. After **6** hours of KF-αβγ application, spray water onto the surface to wet it slightly.

■ QUALITY CONTROL

- Provide first measurements of radiation just after application.
- Expect increasing of resistance to radiation penetration by at 15% to 20% on 28-th day.
- Repeat Quality Control at the same season of the year in equal conditions.

■ WARNING

Do not measure the level of radiation attenuation of specimen made from KF-αβγ powder.
The product must be applied onto the surface of structure or its sampling unit before measuring.

■ SAFETY

Operation with KALMATRON® KF-αβγ is similar to the stucco & plaster jobs. Always use an approved respirator and rubber gloves just like for stucco application. In a case of KALMATRON® KF-αβγ is inhaled or gets in contact with eyes or skin, wash abundantly with water as for any cement containing material. KALMATRON® KF-αβγ is non- toxic, non-flammable and non-explosive.