Seitz + Kerler GmbH + Co. KG

SEILO radiation protection floors

Also concrete floors often require additional shielding. Here, a barite floor made of Röbalith sand is a suitable solution in most of the cases.
When calculating the material requirements, an additional margin of 5 – 10 % must be provided for natural humidity and losses occurring during spreading. The minimum thickness of the coating is 4 cm. In the case of layer thicknesses above 6 cm, a grain size of more than 4 mm should be added as second component.

Mixing ration per cubic metre	up to 6 cm	above 6 cm
Cement	approx. 350 kg	approx. 350 kg
Water	approx. 140 l	approx. 140 l
Röbalith sand 0-4	3000 kg	1500 kg
Räbalith sand 4-16	-	1500 kg

Radiation protection floors can be applied as composite floors or floating floors. With regard to processing, the same regulations and preconditions have to be applied as with normal cement-bound floors.

The floor mortar is to be mixed semidry according to the above ratio. The use of aluminous cement and accelerating agents is not permitted. In contrast to this, an approved mortar liquefier can be added according to factory instructions.

To avoid cracks caused by tension we recommend the use of a steel fabric mat, e.g. N 47 or similar.

In the case of surfaces greater than 20 m^2, the radiation protection floor is to be provided with separation joints, under which a 4-mm thick bituminous lead strip has to be laid to maintain the shielding effect. The joints have then to be filled with bitumen.

To avoid non-uniform curing, we recommend covering the floor with a sand or sawdust layer of 1 - 2 cm, which is to be kept moist for a period of about 8 days. In the case of buildings with heating system, the room heater has to be switched off.

The regulations of VOB have to be observed.

Absorption values: Lead equivalents – in mm of lead – at a tube voltage of				
Floor thickness	100 kV	150 kV	200 kV	250 kV
4.0 cm	5.40	2.40	2.10	2.10
5.0 cm	6.80	3.00	2.60	2.80
6.0 cm	8.40	3.60	3.20	3.50
8.0 cm	-	4.80	4.30	5.00