Epoxy mortar floor coatings

Product Description

EPOLIT M is a 3-part synthetic mortar whose base is epoxy resin and a mixture of quartz fillers of a definite granulation.

Uses

EPOLIT M is primarily intended for the protection of concrete surfaces against mechanical and chemical attacks. It is used in normal, medium heavy and very heavy conditions of exploiting thanks to its physical and chemical characteristics. EPOLIT M can withstand very high mechanical loads and it is chemically inert to water and detergents, mineral acids and alkalis solutions, salt solutions, petroleum and petroleum derivatives, various nonpolar solvents. It may also be used for rebuilding and repair of concrete substrate. Surface levelling can be carried out using EPOLIT M.

- Production and processing areas, workshops - Manufacturing
- Heavy traffic areas
- Forklift traffic
- Food & Dairy Industry
- Paper & Pulp Industry
- Cold Storage Areas
- Breweries, shops, warehouses
- Car services
- Chemical storage area

Advantages

- Excellent Impact Resistance
- Extremely Durable
- Resistant to heavy traffic-Transport resistance
- No joints
- Available in several colours
- Highly chemical resistant

Certificate

Report of quality No. UIV – 333/11 Institute IMS, Belgrade
SRPS G.S2.613 Plastics - Determination of compressive properties of thermosetting plastics.
SRPS G.S2.614 Plastics - Bending test.
SRPS G.S2.753 Flooring. Flammability. Testing of flooring from plastics and rubber.
SRPS EN ISO 4624 Paint and varnishes - Pull-off test for adhesion.
SRPS EN ISO 6272-1 Paint and varnishes. Rapid deformation (impact resistance) tests-Part 1: Falling-weight test, large-area indenter.

TECHNICAL SPECIFICATIONS

Storage and Shelf Life

6 months minimum in unopened package stored in a dry place at temperature over +15°C. Protect from freezing.

Packaging

Exactly definite irretriable package for 28,5 kg of the finished mixture
Part A : Part B : Part C = 2,45 kg : 1,05 kg : 25 kg.
Form and size of a set can be done according to your requests.

PHYSICAL SPECIFICATIONS

Volume Mass of Bound Material, g/cm³	2,141
Compressive Strength, N/mm²	82,4
Flexural Strength, N/mm²	29,7
Adhesive Strength, N/mm²	> 5,0 (Concrete failure)
Chemical Resistance	See Chemical Resistance Table of EPOKSAN Products.
Impact Resistance	There is no cracking while a wight falls from the height of 100 cm (weight mass 1000 g, gauge diameter 20 mm).
Flammability	Hardly flammable with permanent change of the surface appearance

Work Conditions

- Room temperature: min. 15°C, max. 30°C (optimal 20 – 25°C).
- Relative air humidity: below 85%.
- The substrate and uncured floor must be at least 3°C above dew point to reduce the risk of condensation or blooming on the floor finish.
- In the course of work protect floor from direct influence of sun rays.

Pot Life

+15°C	+20°C	+30°C
70 minutes	50 minutes	30 minutes

Drying time

24 hours	Ready for foot traffic
3-4 days	Lightly Serviceable
7 days	Fully Serviceable

Necessary Tools

Paint roller, notched steel trowel, squeegee, filling knives, a brush, low speed electric stirrer (300-400 rpm), scales (20-30kg), industrial vacuum cleaner, floor duster, vessel for mixing (V=30/40 l), clogs with nails.

INSTRUCTIONS FOR USE

Primer + Coating

1-2 x PRIMER + 1 x EPOLIT M (A+B+C)

Material Consumption

About 10,0 kg/m² for floor thickness of 5mm (minimum thickness)
(The values are not in effect for porous, uneven, too blotting bases and material scattering).

Substrate Quality

The substrate (concrete, cement screed) must be clean, dry (the moisture content below 4%) and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. The new concrete substrate must be at least 28 days old, compact, even (max. Unlevelling ± 2 mm/m), without cement laitance, cracks and badly adhered parts. The hydroisolation should be done in underground rooms. The concrete substrate must be of sufficient compressive strenght (minimum 30 N/mm²) with a minimum pull off strength of 1.5 N/mm². There are furthur information on conditions and methods of base preparation in standards SRPS U.F2.033 and SRPS U.F.2.034 and in our advertising materials.

Substrate Preparation

Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface. Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed. Repairs to the substrate, filling of blowholes/voids must be carried out using EPOLIT M. A medium degree of roughness of the concrete or screed surface is optimal for a floor thickness of 5 mm. Higher degree of roughness of the surface requirements higher thickness of this floor coatings.
The concrete or cement screed substrate has to be primed. High spots must be removed by e.g. grinding. Before application of layers all dust and loose materials must be completely removed by brushes or a vacuum cleaner.

Surface Priming

Primer part A and Primer part B join in a suitable vessel in the delivered mixing ratio and mix by electric stirrer. Immediately after mixing do surface impregnation of concrete by paint rollers and/or brushes. After a couple of hours, in case the primed surface gets dry appearance of a light colour, priming must be repeated partially or completely. Avoid puddles on the surface with the primer.

For compact concrete substrates (required quality) primering is sufficient in one coating with the consumption of primer from 0,25-0,30 kg/m². Prepared primer shuld be built-in in the course of 45 minutes.
Apply the coating after the priming coat has dried tack-free all over.

Final Layer Making

Prior to mixing stir Epolit M part A mechanically in the original pail, and after that join with Epolit M part B in a vessel of a corresponding volume (30-40 l) and mix it by electric stirrer (300-400 rpm). While mixing slowly add Epolit M part C and homogenize the mass. The whole process of homogenization lasts 10-15 minutes. The parts should be obligatorily mixed in the above mentioned the mixing ratio i.e. in the mixing ratio they are packed in. After mixing the mass is poured on the concrete surface, spread evenly by means of a notched steel trowel to the thickness of 5 mm. Use levelling battens and screed rails as necessary. Mechanical application of epoxy mortar floor coatings with power trowel is possible but it requires a different production technology of EPOLIT M with the subsequent saturation the floor with epoxy resin. with the final application of epoxy coating over epoxy mortar floor EPOLIT M. A floor can be done in combination with one of epoxy coatings (EPOSAN E) as a final coating with the aim of easier maintenance and better appearance.
Cutting construction joints, if required, should be done after 7 or more days in the required depth of the joints in the concrete. Construction joints must be cleaned from the dust (with compressed air or the like) and filled permanently with elastic polysulfide (thio) putty.

CAUTION

Freshly applied layer of Epolit M must be protected from humidity, condensation, water and heavier chemical and mechanical loads, 7 days at least. While application indoors, it is obligatory to provide good ventilation.

Tool Cleaning

Tools should be washed in solvent immediately after use.

SAFETY REGULATIONS AND SAFETY AT WORK

The use of safety and personal protective equipment is obligatory. Observing the fire fighting measures is required. The physical, safety-technical and ecological data and regulations in work with chemical materials, as well as storage and waste removal must be observed.

STATEMENT ON LIMITED LIABILITY

All information mentioned in this technical sheet have been transferred faithfully and conscientiously and they are based on our knowledge. The final appearance of the floor coating and its physical-chemical characteristics depend on careful preparation, building-in and conditions of the substrate to which we have no influence. The obligation in the warranty period is limited to the quality of the delivered goods. In cases of important building enterprises or if there are problems you are to ask advice from our technical service.

Serbia, 32000 Čačak, Gradsko šetalište b.b.
Phone: + 381 32 / 227743, 227744, 227745
Fax: + 381 32 345740 · Production: + 381 32 350095

www.epoksan.rs · epoksan@eunet.rs