

Type of product: Powder levelling mass, based on calcium sulphate, for obtaining plane and homogenous supports before applying the finishing of any type for floors - according to SR.EN. 13813/2003. The product is used only inside.

Description of product: The product AUTOLIV PIANO 4 is a homogenous mixture of special binders, sands, with synthetic resins for obtaining the mass of fluid levelling, having with optimum self-levelling features. A homogenous, free of pores, without contractions, cracks surface is obtained even when applying in thicker layers.

Intended uses: The AUTOLIV PIANO 4 product is used to level and equalise the calcium sulphate, concrete, cast asphalt, magnesite foundations, the quick-dry foundations, as well as for levelling the layers of foundations in old buildings, with a thickness of 1-20 mm, before applying the finishing for the final floor, such as: PVC, carpets, pavings, parquet, ceramic tiles, laminated or veneered floors, multi-layered parquet, etc. The product is recommended for the heating system inside the floor.

Physical status	powder
Flammability	N/A
Toxicity	N/A
Manners of applying the product	manual and mechanical application
Average consumption	approx. 1.5 kg / mm/m ²
Mixture water	6 l / 25 kg
Preparation	only with water
Workability time	approx. 30 minutes
Clear space	approx. 2-3 hours
Compression resistance after 28 days	C 20
Bending resistance after 28 days	F 6
Operation temperature:	+ 5°C – + 35°C
Ceramic tile final layer application:	After approx. 24 hours (up to 3 mm layer thickness)
Final layer application: carpet, PVC, rubber	After approx. 48 hours (up to 3 mm layer thickness)
Parquet final layer application:	After approx. 72 hours (up to 3 mm layer thickness)
Minimum layer thickness	1 mm
Maximum layer thickness	20 mm

Usage manner: The product is used only by trained and qualified operators, complying with the following stages:

1. Inspection of support:

The inspection of support is an important stage before applying the foundation.

The surfaces on which the product AUTOLIV PIANO 4 is used must be:

- Plane and smooth, the inconsistencies must not exceed 20 mm/m.
- The support must be clean, uniformly dry, unfrozen, without dust, bearing, stable and free of non-adherent portions, oils, fats and concentrated oil.
- All the substances that impede the adherence are removed through: polishing, milling or sanding.
- No cracks. The presence of capillary cracks due to the hydrating reactions of concrete is accepted.
- Resistant, compact and lacking crumbly portions.
- Dry - Residual humidity measured in the support on which the product is applied, at 2-3 cm depth should not exceed 2%.

2. Preparation of support:

After inspecting the support on which the product AUTOLIV PIANO 4 is applied, the operator shall vacuum very well the support surface and shall apply with a brush or a roller the primer corresponding to the type of support.

The absorbent supports are treated with *PRIMER G 2022*, respectively the non-absorbent supports are treated with *PRIMER G 7012*. (consult the products safety data sheets).

The dilatation, contraction and edge joints from the support are "taken over" in the foundation Autoliv Piano 4. The penetration of the foundation into the connection joints is to be avoided.

Autoliv Piano 4 is recommended for all the regular, mineral supports especially for concrete, calcium sulphate and cast asphalt foundations. Autoliv Piano 4 is not recommended for supports made of plastic or metal materials.

3. Preparation of product:

In order to prepare the product, a sack of 25 kg of AUTOLIV PIANO 4 is mixed with 6 l (240 ml/kg) of clean and cold water, only in clean and proper recipients, by pouring the product into the water (not the water into the product). It is mixed slowly with a small speed mixer until obtaining a homogenous, lump free paste.

After mixing, it should be put to rest for 10 minutes and it is remixed for 1 minute, then it is IMMEDIATELY cast.

The workability time at 20°C is of 30 minutes, at temperatures < 20°C the workability time is extended, and at temperatures > 20°C, the workability time decreases. The material that has hardened is not remixed with water, it is disposed of. It should not be mixed with other materials (e.g. additives).

4. Application of product:

None of the operations described below shall be performed under the direct action of sunlight, in the presence of strong wind currents or at environment or support temperatures under 5°C or higher than 35°C.

The levelling mass freshly mixed is cast on the inspected and primed support and it is levelled with a levelling tool (smoothing board, hawk) made of stainless steel of min. 50 cm long, up to the wanted level. In order to obtain a perfectly smooth surface (without pores), the fresh surface must be deaerated crossing over it a spiked roller (immediately after casting). The levelling operations with the levelling tool and the removal of air are performed by the operator within a range of maximum 4 - 5 minutes from casting and using nail clogs in case stepping on the freshly cast paste is necessary.

Autoliv Piano 4 may be mechanically applied as well (continuous screw pump).

In order to obtain larger thicknesses, successive layers shall be cast at an interval of 48 hours, priming each layer.

5. Subsequent treatment:

The fresh levelling mass is protected from the fast drying, from the direct exposure to sunlight and extreme thermal conditions, frost and dry air. A faster drying may lead to the occurrence of cracks. Higher temperatures and lower humidity of air may accelerate drying, and lower temperatures and higher humidity of air may delay drying

6. Final recommendations:

- a. The product is mixed only with clean and cold water and only in clean and proper recipients.
- b. Do not use the product AUTOLIV PIANO 4 outside and in humid spaces (enterprise kitchens, accommodation unit showers).
- c. In case of using on heated floors, stop the heating system 24 hours before and do not turn it on before the complete drying of the product.
- d. The layer thickness of up to 3 mm may be finished after approx. 24 hours. As a rule, it is recommended to consider for each mm of thickness (over the 3 mm) a drying time of 24 hours, at a temperature from +20°C and a relative humidity of the air of $\leq 70\%$;
- e. Wheelchair resistance (acc. to SR.EN. 12529);
- f. The air, material and support temperature, during the processing and the connection process, must be of min. + 5°C and + 35°C.

Packaging: The product is packed in sacks with a mass of 25 kg, 54 sacks/foiled pallet.

Storage: The product is stored for max. 12 months in a dry place (humidity of 55 %), on pallet, in the original package, undamaged, and at temperatures of over 0°C.

Marking: Each sack has been marked with the manufacture date on the base, symbolising:
day . month . year.

Warranty: The product has a 12 month warranty from the manufacture date marked on the package, only under the storage conditions mentioned above.

- ATTENTION!**
- The prepared product is alkaline.
 - Protection glasses, gloves and anti-dust masks shall be worn when manipulating and transporting the product.
 - In case of accidental contact of the product with the eyes, these should be immediately washed with clean water and then consulting the specialised physician!
 - The products in damaged packages shall not be used.
 - The unused rests shall not be disposed of in the sewerage!

Note 1: The present data sheet accompanies each invoice or waybill which refers to the product presented in the sheet.

Note 2: It is forbidden to reproduce parts or fragments from the present data sheet.

Note 3: The present data sheet has been drawn up to properly inform the user about the presented product. The use of this sheet for other purpose than informing you about the product and preparing the technological specifications regarding application is strictly forbidden without the written consent of ITAL-KOL.

Note 4: For other additional information, which you consider you should receive or you find useful, we recommend that you contact the producer in writing, before using the product. Any producer liability regarding failures in applying the product resulted from misinterpreting the text of the present data sheet or from verbal consultancy is excluded.

Note 5: The data presented in the product data sheet and, mainly, the instructions regarding the manner and area of application of the product are based on the skills and practical experience of the person applying the product. Due to a large variety of materials, tools or working conditions which we cannot totally control or foresee or which, even if they are clearly mentioned in the product data sheet, are not correctly assessed by the person applying the product, in each case we recommend, before use, to carry out individual tests of applying the product, so that you can be sure that the product the present data sheet is describing is suitable for your respective field of application.

Any producer liability regarding failures in applying the product resulted from the causes mentioned above in this sheet is excluded, except for the event when the damages resulted only from the poor quality of the product that the present data sheet refers to.

Note 6: Depending on the evolution of the technical regulations applicable, the producer preserves the right to modify the present data sheet. For the purpose of confirming the data in the sheet, we recommend you to visit the web page: web www.italkol.ro prior to using the product