



## POLIMIN LC-2 POURING UNDERLAYMENT

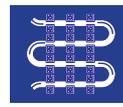
### Levelling underlayment

Levelling underlayment for indoor and outdoor applications

- Levelling layer thickness of 8–80\* mm;
- suitable for floor heating systems;
- for garages, warehouses, and production shops;
- indoor and outdoor application.



levelling layer thickness  
8–80\* mm



suitable for in-floor  
heating



for garages, warehouses,  
and production halls



indoor and outdoor  
application

**PACKAGING 25 kg**

### Product

**POLIMIN LC-2 POURING UNDERLAYMENT** is a levelling cement underlayment for floor installation, applied before the laying of tiles, parquet, linoleum, and other flooring, for indoor and outdoor applications.

Improved product formulation ensures the following advantages:

- **high fluidity** for easy distribution and levelling;
- **wide layer thickness range (8–80\* mm)** for application in various designs;
- **high compressive strength ( $\geq 30 \text{ N/mm}^2$ )** for application both in residential premises and garages, warehouses, etc.;
- suitable for installation of electric and water **floor heating systems**.

### Usage

Working properties of POLIMIN LC-2 screed enable the levelling of existing concrete and cement-sand screeds with grade strength of at least 30 MPa (M300) before laying of tiles, linoleum, carpet covering, etc. The screed can be used for installation of floor heating systems in strict compliance with recommendations provided by the heating system manufacturer. The thickness of the screed layer above the heating elements should be at least 25 mm.

Table 1

Characteristics	
water ratio	0.14–0.16 l per 1 kg 3.5–4.0 l per 25 kg
mixed curing time	3–5 minutes
working time, min.	20 minutes
recommended thickness of application min./max.	8/40 mm

Table 1 (continued)

Characteristics	
*recommended layer thickness with addition of crushed stone aggregate, max.	80 mm
Curing time, min.: - light foot traffic; - tile setting; - painting, affixing of floor coverings with organic glues.	1 day 3 days 7 days
substrate and ambient temperature during application	+5°C to +30°C
packaging	paper bags: 25 kg

The recommended time values specified in the table are based on application temperature of 20–22°C and humidity of 60%.

### Standards

The product complies with the requirements of EN 13813 for underlayments based on CT-C30-F5 cement. Declaration of Performance No. CPR 1/003.

Table 2

 www.polimin.ua		
fire resistance class		A1
corrosive substances emission		CT
compressive strength		$\geq 30 \text{ N/mm}^2$
bending tensile strength		$\geq 5 \text{ N/mm}^2$
water permeability, wear resistance, sound insulation, sound absorption, heat insulation, chemical resistance		NPD

### Working surface preparation

The surface should be:

**Stable** — solid, with sufficient load-bearing capacity, resistant to deformations, cured and cleaned from layers that reduce

adhesion; substrates contaminated with fungi, mould, etc., should be pre-treated with special products.

Cement substrates for the underlayment should be cured for at least 28 days, concrete substrates for at least 3 months.

**Cleaned** from layers that reduce adhesion (lime, oil, fat, wax, oil-based and emulsion paints).

**Dusted** with industrial vacuum cleaners or manually.

**Primed** with Polimin AC-7 (or Polimin AC-5 in case of highly absorbent substrates) to create a proper contact layer. Polimin AC-4 is used in smooth substrates, low absorbent substrates (concrete) or substrates with coatings that limit adhesion.

Table 3

Detailed substrate preparation instructions by substrate type	
floor structure	preparation method
screed bonded onto the substrate ("bonded screed")  <i>screed thickness: at least 10 mm</i>	Solid (at least 30 N/mm <sup>2</sup> ) substrate properly cured and cleaned of any substances that reduce adhesion (dirt, grease, paint marks, etc.). Repair any scratches and tightly closed cracks on the surface by opening and filling with putty. Thoroughly remove all the dust. Prime the substrate with Polimin AC-7 to create a proper contact layer immediately before pouring the levelling mixture.
unbonded screed (with separating layer)  <i>screed thickness: at least 35 mm, in case of subsequent tile laying: 40 mm</i>	in case of insufficient substrate strength (less than 30 N/mm <sup>2</sup> ) it is recommended to install the floor levelling screed over a separating layer (0.2 mm thick PE film). Lay the separating film evenly with extensions over the walls (insulating tape) up to the design levelling screed height; when joining different work zones, lay the separating film with an overlap of at least 50 mm. Apply the mixture directly onto the film.
screed over heat insulation boards ("floating screed")  <i>screed thickness: at least 40 mm, in case of subsequent tile laying: at least 50 mm</i>	Lay thermal insulating boards tightly together in staggered order over a flat surface; place the separating 0.2 mm thick PE film layer over the insulating boards. Lay the separating film evenly with extensions over the walls (insulating tape) up to the design levelling screed height; when joining different work zones, lay the separating film with an overlap of at least 50 mm. Pour the mixture directly onto the film.
screed layer of the floor heating system  <i>screed thickness: at least 45 mm</i>	electric or water floor heating systems should be mounted according to the manufacturer's recommendations. Pipes of the heating system should be filled with water at the time of screed installation. Screed thickness should be at least 45 mm, with the thickness of the layer above the heating elements being at least 25 mm. Check the functioning of the floor heating system by "initial warming-up". The floor heating system can be started no earlier than 21 days following installation of the screed. Operate the system at coolant temperature of 20-25°C during the first three days, then gradually increase the temperature by 3-5°C a day to reach the maximum coolant temperature, and keep at a maximum temperature for 3-5 days.

## Application

### Arranging expansion joints

Separate the underlayment area from walls, columns and other structural elements on the surface with special expansion joint profiles before pouring the levelling mixture. Always cut expansion joints or install expansion profiles at the room entrance/door steps. Divide premises with an area above 20 m<sup>2</sup> into sections with a maximum area of 10-15 m<sup>2</sup>. Extend previously installed expansion joints to the underlayment. Fill expansion joints with a silicone sealant.

### Preparation of mixture

Empty the dry mix from a bag into a container with an accurately metered amount of clean water (please refer to water ratio in Table 1 above) and mix with a low speed mixer to obtain uniform consistency. Let the mixture rest for 3-5 minutes and remix. The prepared mixture must be used within 20-30 minutes.

### Application of the screed

The levelling screed is applied by pouring onto the prepared surface, followed by spreading. The use of screed rails (guiding rails installed at the design floor level) to obtain plain surfaces is recommended. The designated area must be filled with the levelling mixture within 20-30 minutes (shelf life of mixture). For screed thicknesses over 40 mm, adding 2.5-3 kg of expanded clay aggregate per 25 kg of dry mix or crushed stone with an aggregate size of 2-5 mm in the amount of 7-7.5 kg per 25 kg of Polimin LC-2 dry mix is recommended.

### Protection of freshly laid screed

During application and for the first 2-3 days, the poured screed should be protected from rapid drying, direct sunlight, low humidity and draughts.

To create optimal conditions for curing of the underlayment, the freshly laid mixture is covered with film or moisturized with water, depending on the volume of applied screed. Air humidity above 60% in a room with freshly laid screed during the first 2-3 days is recommended.

### Operation and finishing works

Waiting time for light foot traffic is at least 24 hours, for installing finishing coatings — after reaching working moisture content, but at least 7 days. The time needed to reach working moisture content in the screed depends on the screed layer thickness, temperature and humidity conditions in the room. Prime the screed surface with Polimin AC-7 (AC-5) before installing flooring.

## Storage conditions

Store tightly closed in original bags, in a dry environment (preferably on pallets). Protect from moisture. Storage life under the specified conditions is 12 months from the date of manufacture label.

## Additional information

- An incorrect amount of water results in an increase in shrinkage deformations and deterioration of strength

properties of the screed. Select the exact amount of water within the specified range (as shown in Table 1) in such a way so as to avoid water separation on the surface of prepared mixture in the mixing container.

- Wash tools with water immediately after use.
- The product contains cement. It is irritating to the respiratory system and skin. Causes serious eye damage. May cause an allergic skin reaction. Keep out of the reach of children. Do not inhale dust. Wear protective clothing, protective gloves, safety goggles or face shield. In case of skin (or hair) contact, immediately take off contaminated clothing and wash the skin with plenty of running water (take a shower). Seek medical advice in case of skin irritation or rash. In case of eye contact carefully rinse with water for several minutes. Remove contact lenses if worn and easy to do so. Continue rinsing. Follow recommendations provided in the safety data sheet. The content of soluble chromium (VI) in the finished product is  $\leq 0.0002\%$ .

## Special Information

The reliability of this data is based on laboratory tests and practical experience, and is relevant for the period specified in the technical specification.

The quality of the material is provided by a proprietary quality system that meets the requirements of the international standard ISO 9001.

The application, performance of work using the material shall be carried out in accordance with current regulatory documentation on the territory of the country.

The manufacturer can not incur liability for damage caused by use of the material not in accordance with the issued specifications for use or when not used for its intended purpose. With the new edition's release, this document will cease to be in force.

*The information contained in the technical card provides basic data relating to the application of the product and does not release from the obligation of performance of works in accordance with building codes and safety regulations. Since the issuance of this technical card, all previous ones have been cancelled. The current technical documentation of the product is available on drive. [polimin.ua](http://polimin.ua) or [polimin.ua](http://polimin.ua) in the relevant language section.*

**February 2018**