



MAXLEVEL®



CEMENT-BASED SELF-LEVELLING UNDERLAYMENT FOR INDOOR CONCRETE PAVEMENTS AND FLOORS

DESCRIPTION

MAXLEVEL® is a one-component mortar, based on polymer-modified cement and selected aggregates. Once mixed only with water **MAXLEVEL®** provides a self-levelling underlayment suitable for preparation and smoothing of indoor floors, in thickness between 3 and 10 mm, before the installation of other floor finish systems: tile, wood, carpet, polyurethane coatings, etc.

APPLICATION FIELDS

- Self-levelling underlayment as indoor subfloor before the application of other floor-surfacing systems such as ceramic tiles, carpets, stone, wood, vinyl sheeting, epoxy or polyurethane top-coats, etc.
- Smoothing surfaces on concrete, terrazzo, tiles and stone in residential buildings, hospitals, hotels, offices, etc.
- Preparation and levelling of deteriorated uneven concrete floors with cracks, unsound areas, etc.

ADVANTAGES

- High fluidity and levelling properties, no trowelling required.
- Fast hardening: allows installation of others floor surfacing-systems in 24 hours.
- Stress-free hardening, low risk of cracks.
- Easy to mix and use: just add water, and apply manually by pouring or mechanically by pumping. Cover large surfaces per day.
- Environmentally friendly: non-toxic, cement-based and solvent-free product.

APPLICATION INSTRUCTIONS

Surface preparation

Surface must be structurally sound, firm, without cement laitance and as uniform as possible, and

preferably with a slight roughness, i.e. open textured surface. Minimum bond strength of substrate must be above 1 N/mm². It must be clean and free of paints, coatings, efflorescence, loose particles, grease, oils, curing agents, form release agents, dust, gypsum plasters, organic growth or any other contaminants that may affect adhesion.

For cleaning and surface preparation, preferably in case of smooth and/or poorly absorbent substrates, use sand blasting or high pressure water cleaning methods, not being desirable aggressive mechanical or chemical means.

All voids, holes, honeycombs, static cracks without movement or any others defects deeper than 8 mm, once opened and routed must be repaired with patching mortar **MAXROAD®** (Technical Bulletin No. 27).

Priming

Prime surface with **MAXPRIMER® FLOOR** (Technical Bulletin No. 230) for best adhesion and prevent air bubbles on surface. Dilute 1 part of **MAXPRIMER® FLOOR** with 3 parts of water, and then apply a homogeneous and continuous coat by brush or broom without leaving any puddles. Estimated consumption of the dilution is 0,2 - 0,25 kg/m² per coat. On very porous surfaces, two or three successive coats may be required, with a drying time between coats of 10-15 minutes at 20 °C. Allow **MAXPRIMER® FLOOR** dry to touch before applying the self-levelling mortar, 3-4 hours at 20 °C depending on temperature, relative humidity and ventilation conditions.

With low temperatures, high humidity or poor ventilation, the drying time can be increased up to the next day after application. Do not allow more than 24 hours before applying the cement-based mortar.

Mixing

A 25 kg bag of **MAXLEVEL®** is mixed with 5 to 5,5 litres (20–22 %) of clean water, depending on the ambient conditions and the consistency required.

Pour the water in a clean container and then slowly add **MAXLEVEL®** mixing by a slow speed drill (400-600 rpm) fitted with a disc mixer, for about 2-3 minutes until achieving a smooth, lump-free and homogeneous mortar. Small quantities of product can also be mixed by hand.

Allow the mixture to rest for 2-3 minutes to fully wet out all the powder, and remix briefly again before applying.

For applications by pumping means, ensure to keep the same mixing ratio.

For levelling with thickness higher than 10 mm and up to 18,0 mm, add 8 kg of dry silica sand, free of fine particle (size from 0 to 3 mm maximum) per each 25 kg bag of **MAXLEVEL®**. Mix previously both compounds before adding the water. Add the enough water to achieve a workable consistency mortar, 4,5-5 litres of water per 25 kg bag, but avoiding any excess which may cause bleeding or segregation. The addition of sand reduces the water demand per bag.

Application

Place and spread **MAXLEVEL®** in a single step with a rubber squeegee in thickness layer from 3 to 10 mm for pure product, and up to 18 mm if added silica.

Apply in delimited sections in advance that should be finished completely to avoid cold joints in non desired places. Limits of each section should coincide with contraction or concrete joints of pavement.

Before **MAXLEVEL®** begins to set, from 20 to 30 minutes at 20 °C, use a spiked roller to eliminate possible entrapped air on surface.

Twenty four hours after application, sawcut contraction joints on each limit or every 36 m² maximum if there are not present on concrete base. Isolation joints must be provided on the perimeter between ad-joining parts.

For thickness higher than 10 mm with pure product or than 18 mm with silica, apply the next layer once the previous one can take pedestrian traffic.

Expansion joints must not be covered by **MAXLEVEL®** and should be sealed with a suitable flexible sealant of **MAXFLEX®** range.

Application conditions

Do not apply if water contact, condensation or dew is expected within 24 h after application.

Do not apply with substrate and/or ambient temperature is at or below 5°C, or when temperatures are expected to fall below 5 °C within 24 h. Do not apply to frozen or frost-covered surfaces. Do not apply with substrate and/or ambient temperatures higher than 35 °C.

Curing

With hot temperature (>30°C), windy conditions and/or direct sunlight, protect from quick drying by covering with polyethylene sheeting or damp burlaps. Do not use curing agent nor wet the surface.

Allow **MAXLEVEL®** to cure 8 hours for pedestrian traffic and 24 hours for installation of floor finishing, at 20 °C and 50% R.H. Lower temperature and/or higher R.H. increase the curing time. Check surface moisture below 5% before applying epoxy or polyurethane coatings.

Cleaning

All mixing and equipments must be cleaned immediately with water after use. Once product hardens, this can only be removed by mechanical means.

CONSUMPTION

Estimated consumption of **MAXLEVEL®** is 1,6 kg/m² per mm thickness.

Estimated consumption of **MAXLEVEL®** with silica is 1,2 kg/m² per mm thickness.

These figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on-site to ascertain the total consumption exactly.

IMPORTANT INDICATIONS

- Only for indoor applications.
- Do not apply on substrates vitrified or enamelled, bituminous materials, metals, wood, plasters, gypsum or paints.
- Do not apply over weak or unsound substrates.
- Allow new concrete and mortars a curing time of 28 days before application.
- Do not add compounds different than specified.
- Observe the recommended mixing ratios.
- Do not use leftovers from previous mixes.
- To keep workability of fresh mortar, remix again but never add more water.
- Observe the recommended thickness per layer.
- For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

PACKAGING

MAXLEVEL® is supplied in 25 kg bags. It is available in pinkish-light grey colour.

STORAGE

Twelve months in its unopened original packaging. Store in a cool, dry and covered place, protected from moisture, freezing and direct sunlight, at temperatures above 5 °C.

SAFETY AND HEALTH

MAXLEVEL® is not a toxic product but is an abrasive compound. Avoid direct contact with skin and eyes, and breathing dust. Use rubber gloves and safety goggles during application. In case of

skin contact, wash affected area with soap and water. In case of eye contact, rinse immediately thoroughly with clean water but do not rub. If the irritation persists, seek medical assistance.

Consult the Material Safety Data Sheet of **MAXLEVEL®**.

Disposal of the product and its packaging should be carried out according to the current official regulations and it is the responsibility of the final user of the product.

TECHNICAL DATA

Product characteristics	
<i>CE Marking, UNE-EN 13813</i>	
Description: Polymer modified cementitious screed material. EN 13813 CT-C25-F6.	
Uses: Indoor applications in construction.	
General appearance and colour	Pinkish-light grey powder
Mixing water ratio, (% by weight)	21 ± 1
Slump in 5 cm x 3 cm cylinder, (mm)	135
Application and curing conditions	
Minimum application temperature for substrate and ambient, (°C)	> 5
Pot life at 20 °C & 50 R.H., (min)	30 – 40
Initial / Final setting time at 20 °C & 50% R.H., (h)	1 / 4
Curing time for pedestrian traffic/ installation floor finish, at 20 °C & 50% H.R., (h)	8/ 24
Cured product characteristics	
Compressive strength at 7/3/28 days, EN 13892-2 (N/mm ²)	20,1 / 24,7 / 28,6 – C25
Flexural strength at 7/3/28 days, EN 13892-2 (N/mm ²)	4,6 / 6,6 / 6,7 – F6
Wear resistance Böhme, EN 13892-3 (cm ³ /50 cm ²)	5,8 – A3
Surface hardness, EN 13892-6 (N/mm ²)	109,8 – SH 100
Elastic modulus, ISO 178 (kN/mm ²)	9,55
Impact resistance and height for first cracks, EN ISO 6272 (N·m – mm)	IR 7,85 - 800
Adhesion on concrete at 28 days, EN 13892-8 (N/mm ²)	2,15
Release of corrosive substances	CT
Reaction to fire, EN 13501-1 (Euroclass)	A1
Thickness / Consumption*	
Thickness per layer pure product/ mixed with silica (mm)	3 – 10/ 10 – 18
Consumption per layer pure product/ mixed with silica (kg/m ² ·mm)	1,6/ 1,2

* These figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on-site to ascertain the total consumption exactly.

GUARANTEE

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. **DRIZORO®, S.A.U.** reserves the right to introduce changes without prior notice. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorised by us. We shall not accept responsibility exceeding the value of the purchased product. The data shown on consumptions, measurement and yields are for guidance only and based on our experience. These data are subject to variation due to the specific atmospheric and jobsite conditions so reasonable variations from the data may be experienced. In order to know the real data, a test on the jobsite must be done, and it will be carried out under the client responsibility. We shall not accept responsibility exceeding the value of the purchased product. For any other doubt, consult our Technical Department. This version of bulletin replaces the previous one.


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