ARDEX K 511

Concrete-Look, Mineral-Based, Decorative Floor Covering

- Two-component, cement, special hydraulic binder, and polymer based
- Gray in color, adjustable color tone
- Application thickness up to 10 mm
- Low shrinkage and stress
- Non dust causing surface
- ARDEX Decorative flooring system product

Description

The dry product consists of specially selected additives, fillers, and synthetic powder dispersion, gray cement, and special hydraulic powder binder mixture.

The water-based liquid product is composed of a specially selected strength-enhancing liquid polymer mixture.

The dry and liquid products are mixed in the specified packaging, without the addition of extra water.

After mixing the two components, a flowing and self-leveling mortar is formed. Due to the very low internal stress and shrinkage of the product after application, no cracking occurs during drying.

Scope of Use

ARDEX K 511 is a two-component, self-leveling, mineral-based decorative flooring system product used in interior spaces such as residential, office, and retail areas with light pedestrian traffic where a concrete appearance is desired. It is applied to level and smooth the surface of floors because it spreads by itself.

It can be applied on absorbent surfaces like concrete, cementitious screeds, gypsum screeds, and non-absorbent surfaces like terrazzo, natural stone, ceramic, etc.

After application, subsequent treatments such as protection and polishing can be carried out 24-48 hours later.

CE
1783

ARDEX Yapı Malzemeleri Ltd. Şti.
İstnabul Deri Organize Sanayi Bölgesi
Desen Sok. No:14/A C1 Özel Parsel
P.K. 34956 Tuzla / İstanbul / Türkiye

22

40069
EN 13813:2002

40069 ARDEX K 511,
EN:13813:CT-C16-F5-A22;
Polymer modified

Cementitious screed for internal use

Reaction to fire:	$A2_{fl}$-s1
Release of corrosive substances:	CT
Water permeability:	NPD
Water vapour permeability:	NPD
Compressive strength:	C16
Flexural strength:	F5
Wear resistance according to Böhme:	A22
Sound insulation:	NPD
Sound absorption:	NPD
Thermal resistance:	NPD
Chemical resistance:	NPD

ARDEX Yapı Malzemeleri Limited Şirketi
İstanbul Deri Organize Sanayi Bölgesi Desen Sk.
No:14/A C1 Özel Parsel Tuzla/İstanbul/TÜRKİYE
Tel.:+90 (216) 394 0114 Fax:+90 (216) 394 0377
info@ardex.com.tr - www.ardex.com.tr

ARDEX Turkey is a subsidiary of the international ARDEX Group.

ARDEX K 511

Concrete-Look, Mineral-Based, Decorative Floor Covering

Surface Preparation

The substrate should be dry, stable, devoid of dust, and completely free from any contaminants such as dirt or oil. There should be no visible cracks on the flooring.

The subgrade compressive strength must be at least 25 N/mm² and the adhesion strength must be more than 1.5 N/mm.

All concrete surfaces must have completed a minimum of 6 weeks of curing.

The moisture level of the substrate should not exceed 2% by mass. It is crucial to precisely measure the moisture content of the substrate before proceeding, typically assessed through a CM test. Any joints or connections on the substrate should be raised to an appropriate level,

and vertical edges must be separated using delicate, soft strips.

Following this meticulous surface preparation, Seire Impramacion epoxy primer is applied. While the epoxy primer is still in its liquid state, silica sand is generously distributed across the entire surface.

Approximately one day later, any excess, unbound sand should be thoroughly removed from the surface using a powerful industrial vacuum cleaner. Subsequently, the surface should be meticulously cleaned of any remaining sand and dust using a brush.

Application

In a clean container, start by pouring the entire liquid component of ARDEX K 511. Next, add the complete powder component of ARDEX K 511, and use an electric mixer with a suitable tip to blend it until the mixture is free of lumps.

During the initial blending, any thick mortar that has accumulated along the edges of the container should be scraped off with a trowel and incorporated into the mortar. Continue mixing until the mortar achieves a consistent, lump-free texture. Under no circumstances should any

mortar that has begun to dry in the container be reused or mixed with fresh mortar. There is no need to introduce additional water to the product beyond these two components.

Once the product is homogenous, it should be poured onto the floor and spread across the surface with an adjustable trowel to achieve a thickness of at least 5mm, but no more than 10mm. Subsequently, a broad trowel can be employed to provide the final finishing touches.

Coloring

The color of ARDEX K 511 can be customized using white or black powder pigments. To do this, after pouring the liquid component into the container, add the desired amount of white or black pigment to the liquid component and vigorously mix it until fully dissolved. Then, introduce the powder component to the mixture. If you intend to change the color, it is advisable to calculate the product required for the same area or sections as much as possible. Color the liquid components in a large container all at once. There is absolutely no need to add extra water.

As the colored liquid is prepared in a large container and used, regularly stir any pigments that may settle at the bottom. Keep in mind that slight variations in color may occur in decorative floor coating applications due to the fact that the color tones of the gray cement and other fillers and additives in the dry product may not be entirely consistent.

Whenever feasible, bags for single-room applications should originate from the same production batch. Acquiring additional bags at different times or mixing products from different batches can result in color tone discrepancies.

Surface Protection & Polishment

The final protective and polishing layer applied to the surface can exhibit either a matte or glossy finish.

To begin, lightly wipe the surface with a damp mop or cloth to ensure the absence of any remaining dust.

Next, ARDEX LOBA FactoryBase, a water-based epoxy surface primer, should be poured into a sizable container. Using an appropriate mop, apply a single coat to the surface. Allow it to dry for approximately 2-3 hours. When applying this product, it's important to avoid direct pouring onto the surface to prevent accumulation; instead, use a mop from a wide container to evenly distribute the primer.

After the primer has dried, ARDEX LOBA 2K Factory Style, a PU-based surface protection and polish, should be applied to the surface in the same manner using a mop, and left to dry. The surface can be opened to foot traffic approximately 1 day later.

If a glossy surface is desired, ARDEX panDOMO SP-GS should be applied on the surface where ARDEX LOBA 2K Factory Style has been applied.

Cleaning and Maintenance

Regular daily cleaning and maintenance of ARDEX Decorative surface products with ARDEX Wishpflege will significantly extend the surface's longevity and appearance.

Suitable Conditions for Application

The environment must be free of dust and maintained in a clean condition. Both the room and floor temperatures should exceed 10°C and never fall below 30°C. The ideal ambient humidity level should be maintained at around 50%. The space should be shielded entirely from direct sunlight and wind. If required, windows should be closed to avoid exposure to the sun. Any openings in windy areas, under doors, and so on, should be effectively sealed.

Precautions

For existing cracks, it's essential to reinforce them using a rebar binding method and fill any voids in the cracks with ARDEX P 10 SR rapid hardening crack repair resin kit.

The compressive strength of the underlying screed should be a minimum of 25 N/mm², and the adhesion strength should exceed 1.5 N/mm.

If the existing concrete screed lacks sufficient strength, it should be strengthened with ARDEX P 62 SB, a sodium silicate-based screed enhancer.

Application should never take place on newly poured concrete surfaces that have not completed their curing and drying process.

The underlying screed should be poured in accordance with the principles of structural physics, and joints should be correctly established. There must be joints between all load-bearing walls and column axes. Joints on the underlying surface should be brought to the surface. In cases where suitable joints are absent, it is advisable to consult with the client and create the necessary joints.

Before applying to non-absorbent surfaces with joints such as ceramic, natural stone, and so on, ARDEX A 45 should be applied in advance to ensure the surface is balanced and prevent the joints from being visible.

All subfloor processes, product preparation, application, and surface treatments should be executed by expert application teams following the guidelines presented in the ARDEX floor application guide. In the event of any conflicting situations, consultation with ARDEX Technical teams is recommended.

ARDEX K 511

Concrete-Look, Mineral-Based, Decorative Floor Covering

Underfloor Heating System

If an underfloor heating system is present, it should be operated in accordance with the appropriate instructions (refer to the ARDEX Guide for commissioning the system in underfloor heating screeds) before applying the decorative floor covering. Any cracks that may occur must be repaired and reinforced (consult the ARDEX subfloor application guide for guidance).

ARDEX 511 decorative floor covering system products should be stored in a closed and unopened condition until the application is completed. Under no circumstances should these products be operated or opened during this period. In case of any conflicting situations or uncertainties, it is advisable to seek guidance from the ARDEX Technical team.

Safety Precautions

Powder Component:

Due to the cement content in this product, it exhibits an alkaline reaction. Avoid contact with eyes and skin. If contact occurs, thoroughly rinse with an abundant amount of water or seek medical attention.

Liquid Component:

GISCODE D1 = Solvent-free

Product contents: 5-Chloro-2-methylisothiazolin-3-one and 2-methylisothiazolin-3-one (3:1)

May induce allergic reactions. Keep out of the reach of children.

Dispose of both the product contents and packaging in compliance with local, national, and international regulations.

For comprehensive and up-to-date safety information, refer to the product safety data sheet.

Recommended Collomix mixing paddle

DLX Series

KR Series

TECHNICAL DATA ACCORDING TO ARDEX QUALITY STANDARDS

Mixing ratio:	25 kg Component A 6.2 l Component B
Bulk density:	approx. 1.2 kg/l
Fresh mortar weight:	approx. 1.9 kg/l
Consumption:	approx. 1,5 kg powder/m²–mm
Application thickness:	between 5 - 10 mm
Workability *:	approx. 30 minutes
Walkability *:	approx. 90 minutes

Time to proceed to next treatment *:

After approx. 24 - 48 hours for 5mm thickness
After approx. 72 hours for thicknesses between 5-10 mm

* All data is approximately based on laboratory test made at a temperature of +20°C and relative humidity of %65. Environmental conditions may change these values. Higher temperatures and lower relative humidity decrease these duration whereas lower temprature and higher relative humidty increases them.

Compressive strength:	approx. 16 N/mm² after 28 days
Tensile bending strength:	approx. 5 N/mm² after 28 days
Resistant to chair castors:	Yes
Suited for floorheating:	Yes
GHS/CLP classification	None
GGVSEV/ADR classification:	None
Packaging:	25 kg paper bag + 6,2 l metallic bag
Storage and shelf life:	Can be stored for approx. 12 months in dry rooms in originally sealed packaging.

29.06.2024/EB