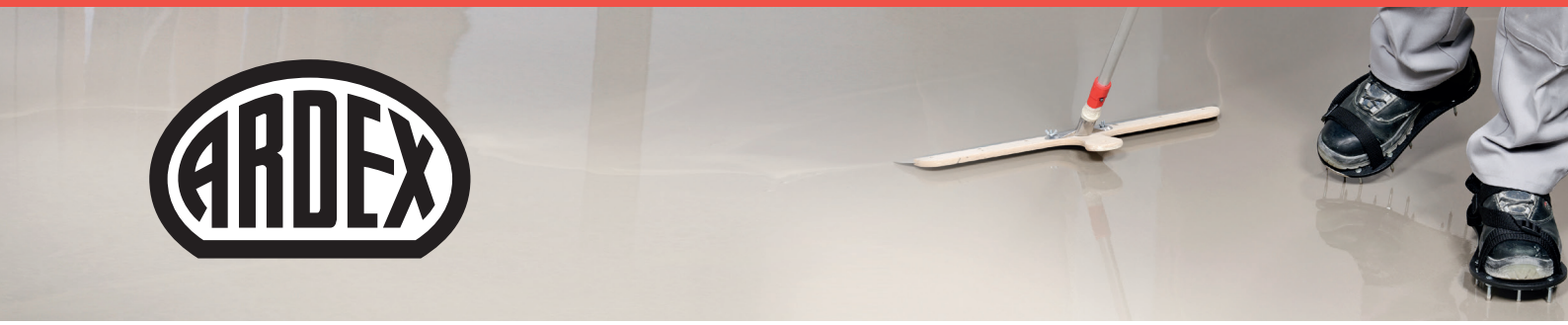
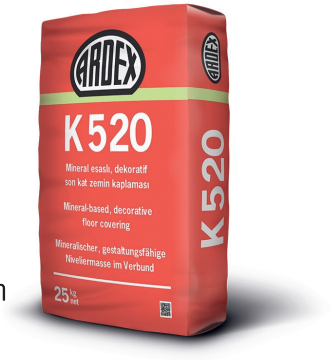


ARDEX K 520

Concrete-Look, Mineral-Based, Decorative Floor Covering

- Cement, special hydraulic binder, and polymer based
- Thicknesses span 6mm to 25mm, reaching up to 75mm with added aggregate in floor covering
- Thicknesses span 10mm to 25mm, in terrazo
- Cement gray and white color options
- Low shrinkage and stress
- Non dust causing surface
- 35N/mm² high compressive strength
- ARDEX Decorative flooring system product



Description

The powder consists of a mixture of specially selected additives, fillers and synthetic powder dispersion, gray cement and special hydraulic powder binders. After the powder product is mixed with water, a fluid and spreading mortar is formed.

Scope of Use

ARDEX K 520 is a self-leveling, topping for fast-track resurfacing, smoothing or leveling of indoor concrete and certain non-porous surfaces. ARDEX K 520 can be installed up to 25 mm thick neat and up to 7.5 cm thick with the addition of appropriate aggregate (see Technical Data section for minimum installation thicknesses by application). Use ARDEX K 520 in warehouses, utility rooms and light manufacturing areas to provide a hard, flat, smooth surface that can be sealed. Also use over concrete and terrazzo substrates in areas that require a polished surface. Sealing or polishing can proceed in as little as 24-48 hours.

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. Just because the surface is wiped with diamond polishing machines does not mean that the surface is completely free of paraffin-based concrete cure and oils. In applications on concrete, the surface must be completely cleaned with shot blasting or a similar method.

CE
0432

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22

40068

EN 13813:2002

40068 ARDEX K 520, EN 13813:CT-C35-F7; Polymer-modified

Cementitious screed for internal use

Reaction to fire:	$A1_{fl}$
Release of corrosive substances:	CT
Water permeability:	NPD
Water vapour permeability:	NPD
Compressive strength:	C35
Flexural strength:	F7
Wear resistance according to BCA:	NPD
Sound Insulation:	NPD
Sound absorption:	NPD
Thermal resistance:	NPD
Chemical Resistance	NPD

GEV-EMICODE EC 1 PLUS very low emission

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ARDEX Turkey is a subsidiary of the international ARDEX Group.

ARDEX K 520

Concrete-Look, Mineral-Based, Decorative Floor Covering

The subgrade compressive strength must be at least 35 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.

Non-absorbent, terrazzo, ceramic etc. A suitable epoxy-based primer should be used to create adherence to the subfloors. (See ARDEX Floor Systems Brochure)

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.

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.

ARDEX won't be responsible for any cracks that may occur due to visible, invisible or immobile joints.

Joints and Moving Cracks

Under no circumstances should ARDEX K 520 be installed over any joints or any moving cracks. All existing expansion joints, isolation joints, construction joints and control joints (saw cuts), as well as all moving cracks, must be honored up through the topping by installing a flexible sealing compound specifically designed for use in moving joints. Failure to do so may result in cracking and/or disbonding of the topping. Even the slightest amount of movement in a control joint will cause the ARDEX K 520 to show a hairline crack in a pattern reflective of the joint.

ARDEX cannot be responsible for problems that arise from joints, existing cracks or new cracks that may develop after the system has been installed.

Priming

In retail, hospitality and other areas where aesthetics are critical, for non-absorbent substrates and for all polishing applications, prime with ARDEX Seire Impramacion Epoxy Primer. Follow the general recommendations for substrate preparation above, and apply the ARDEX Seire Impramacion with sand broadcast.

In areas where aesthetics are not critical (warehouses, mechanical rooms, etc.), standard absorbent concrete can be primed with ARDEX P 51TM Primer diluted 1:1 with water in accordance with the technical data sheet. Apply evenly with a soft push broom. Do not use paint rollers, mops or spray equipment. Do not leave any bare spots. Brush off puddles and excess primer. Allow primer to dry to a clear, thin film (min. 3 hours, max. 24 hours). Extremely absorbent concrete may require two applications of ARDEX P 51 to avoid the formation of bubbles and pinholes in the ARDEX K 520. In such cases, make an initial application of ARDEX P 51 diluted with 3 parts by volume of water. Let dry thoroughly (1 to 3 hours) and install a second application of ARDEX P 51 mixed 1:1 with water as stated above.

Mixing and Application

MIXING MANUALLY

ARDEX K 520 is mixed two bags at a time. Mix each 25 kg bag with 4.5 - 5.5 l of clean water. Pour the water in the mixing drum first, and then add each bag of ARDEX K 520 while mixing with an heavy-duty drill (min. 650 rpm). Mix thoroughly for approximately 2 - 3 minutes to obtain a lump-free mix. **DO NOT OVERWATER!** Yellowish foam while mixing or settling of the sand aggregate while placing indicates overwatering.

When installing ARDEX K 520 in high-stress areas subject to rolling loads such as rubber-wheeled forklift traffic or similar use, the addition of ARDEX E 25TM Resilient Emulsion is required to increase the resiliency of the ARDEX K 520. Mix 2 l of ARDEX E 25 with 4.7 l of water for each bag of ARDEX K 520 following the mixing instructions above. Please note that, if ARDEX E 25 is used, the ARDEX K 520 must first cure 24 hours prior to receiving foot traffic and 48 hours prior to being polished.

PUMPING

ARDEX K 520 may also be pumped using automatic mixing pumps. However, please contact the ARDEX Technical Service Department for details.

Application Instructions

ARDEX K 520 has a flow time of 10 minutes at 21°C. Pour the mix onto the substrate, and spread with a spreader. Immediately smooth the material withan appropriate smoother. Wear baseball or soccer shoes with non-metallic cleats to avoid leaving marks in the liquid ARDEX K 520.

Thickness of Application

ARDEX K 520 can be installed from 6 mm up to 25 mm over large areas neat and up to 7.5 cm with the addition of proper aggregate. ARDEX K 520 also can be tapered to meet existing elevations. Install at a minimum thickness of 9.5 mm if being used as a polished topping. ARDEX K 520 can be thinned or thickened according to the thickness of the joint edges.

If a terrazzo appearance is desired, the thickness must be at least 12 mm.

For areas with thicknesses greater than 2.5 cm, mix ARDEX K 520 with washed and well-graded 3 - 9.5 mm pea gravel. Please note that the aggregate size must not exceed 1/3 the depth of the pour. Mix the ARDEX K 520 with water first, and then add 1 part aggregate by volume, mixing until the aggregate is completely coated. Do not use sand. If the aggregate is wet, reduce the amount of water to avoid overwatering.

The addition of aggregate will diminish the workability of the product and may make it necessary to install a neat coat to obtain a smooth surface. Allow the initial application to dry for 48 hours, and then prime this layer with ARDEX Seire Impramacion with sand broadcast in accordance with the technical data sheet. Allow the primer to dry for a minimum of 16 hours, then broom sweep and vacuum the surface to remove all loose sand prior to installing the neat coat of ARDEX K 520.

Coloring

The color of ARDEX K 520 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.

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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 Treatment

If a terrazzo appearance is desired, ARDEX 520 applied with appropriate aggregates of at least 12 mm thickness and 1/3 of the thickness, should be polished with a diamond polishing machine 24-48 hours later. After polishing, the surface should be thoroughly washed, and the pores on the surface should be filled with the mortar obtained by mixing ARDEX K 520 dust produced during polishing and ARDEX E 25. The next day, fine polishing should be done again, and if necessary, the surface should be finished with the finest sandpaper.

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.

In terrazzo applications, ARDEX panDOMO SP-GS glossy polish should be applied after applying 2 coats of ARDEX panDOMO SP-PS water-based polyurethane protectant.

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 PROFESSIONAL USE ONLY.

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 35 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 calcium silicate-based screed enhancer.

Application should never be done on freshly poured concrete surfaces that have not completed their curing process or have not fully dried.

The subfloor screed must be poured in accordance with the principles of structural physics, and joints should be opened properly. Joints on the subfloor must always be transferred to the upper surface. If there are no joints at the bottom, consult with the client and open the necessary joints in the required areas.

Before applying on non-absorbent surfaces with joints like ceramics, natural stone, etc., ARDEX A 45 should be applied beforehand to balance the surface to ensure that joints do not show on the surface.

All subfloor operations, product preparation, application, and surface treatments should be carried out by professional application teams as shown in the ARDEX floor application guide. In cases of contradiction, information should be obtained from the ARDEX technical team.

ARDEX K 520 surfaces are suitable for foot traffic. Heavy conditions such as hard plastic or steel wheels, moving heavy metal equipment, or nailed pallets can cause depressions and indentations. ARDEX K 520 is not a suitable coating for heavy production areas, industrial floors, or chemical areas requiring special solutions. Like any floor coating (wood, soft natural stone, marble, etc.), scratches and wear may occur due to moving or relocating furniture. Keeping the surface clean and protecting it from dust and other contaminants will minimize scratches and wear due to foot traffic.

This product is for indoor use on dry surfaces. Continuous exposure to water or permanent surface moisture jeopardizes the performance of the coating. This product is not a moisture barrier and allows moisture to pass through. If surface moisture exceeds the allowed maximum level, it is recommended to apply a moisture barrier, such as ARDEX PU 30, while considering the warnings in the technical data sheet.

ARDEX K 520 surfaces do not provide a perfectly homogeneous appearance. Physical effects that occur during product distribution and correction lead to different appearances on the surface, even if the surface is flat and uniform. Technical and artistic tolerances should be considered for aesthetic appearance. Changes in the final appearance are an expected effect and are normal.

A trial of product application, including protective products, should always be conducted in a suitable area to assess the suitability and appearance of the products to be used. Care should be taken to follow the guidelines of the coating manufacturer, such as the maximum moisture content or recommended usage method, as subsequent coatings may vary.

The surface reaches the required hardness after 28 days.

Although ARDEX K 520 can be applied to concrete floors with underfloor heating, it should not come into direct contact with the heating system. If there is underfloor heating in the concrete surface, it must be closed and the concrete allowed to cool before applying ARDEX K 520.

ARDEX primers may require longer drying times in cases where surface temperature is low or ambient humidity is high. Application of ARDEX 520 should not be done before the primer has completely dried.

In addition to ARDEX-approved products, it should not be mixed with any cement or additive. General rules for concrete casting should be followed. It should not be applied at surface and air temperatures below 10°C. If the surface is hot, the application should be carried out quickly, following the instructions provided by the ARDEX technical department for hot weather applications.

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Underfloor Heating Systems

If there is underfloor heating on the floor, the underfloor heating system must be operated according to the appropriate instructions (see the ARDEX Guide for Commissioning the System in Heated Screeds) before applying the decorative floor covering, and any cracks that may occur must be repaired and reinforced (see the ARDEX Subfloor Application Guide). The underfloor heating system must be kept off, should never be turned on, and should be kept off entirely until the application is completely finished. In cases of contradiction, consult with the ARDEX Technical team.

Safety Precautions

As the product contains cement, it exhibits alkaline reactions. Avoid contact with eyes and skin. In case of contact, rinse thoroughly with plenty of water or seek medical attention. It can cause allergic reactions and should not come into contact with children. Its content and packaging should be disposed of according to local, national, and international regulations. For detailed and up-to-date safety information, please review the product safety data sheet.

Recommended Collomix mixing paddle

DLX Series

KR Series

TECHNICAL DATA ACCORDING TO ARDEX QUALITY STANDARDS

Mixing ratio:	4.5 - 5.5 l liquid for 25kg powder
Bulk density:	approx. 1.45 kg/l
Fresh mortar weight:	approx. 2.05 kg/l
Consumption:	approx. 1.65 kg powder/m²–mm

Application Types and Thicknesses:

Concrete Look Decorative Floor:
Between 7 – 15 mm

Terrazzo Decorative Floor:
Between 12 –25 mm

Floor Under Coating:
6 – 25mm, 75mm with the addition of appropriate aggregate

Workability *:	approx. 30 min.
Walkability *:	approx. 2 - 3 hours

Ready to receive floor coverings *:

3 days for thicknesses between 5 – 0 mm
7 days for thicknesses between 10 – 20 mm

Time to proceed to next treatment *:

After approximately 24 - 48 hours, it is recommended to cover it with PE film for faster drying.

* 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. 35 N/mm² after 28 days
Tensile bending strength:	approx. 5 N/mm² after 28 days
Resistant to chair castors:	Yes
Suited for floorheating:	Yes
EMICODE:	EC 1PLUS - Very low emission
GHS/CLP classification	None
GGVSEV/ADR classification:	None
Packaging:	25 kg paper bag
Storage and shelf life:	Can be stored for approx. 12 months in dry rooms in originally sealed packaging.

07.08.2024/EB