



ARDEX SD-P[®]

Self-Drying, Fast Setting Concrete Underlayment

Portland cement-based

Provides a smooth surface prior to floor covering installation

**Mixes with water only – no primer required over concrete,
no latex additive necessary**

Easy to mix and apply

Exceptional bond strength

Use for interior floors only

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ARDEX SD-P®

Self-Drying, Fast Setting Concrete Underlayment

Description and Usage

ARDEX SD-P® is a Portland cement-based, self-drying, fast setting, trowelable patch for smoothing and repairing concrete floors, ramps, and stairways, as well as non-porous substrates such as terrazzo, ceramic and quarry tile, prior to the installation of floor covering. When installed over standard absorbent concrete, no priming is required. Over non-porous substrates, the use of ARDEX P 82™ ULTRA PRIME ensures a permanent repair.

ARDEX SD-P sets quickly so that a smooth, steel-troweled surface can be readily obtained. Using advanced Portland cement chemistry with a self-drying matrix, ARDEX SD-P is ideal for patching and reaches a compressive strength of 4200 psi. The finished surface hardens rapidly, permitting the installation of most common floor coverings to proceed immediately – no additional drying time is required. It was developed to reduce curing time on pressed-for-time jobs.

Substrate Preparation

All concrete substrates must be solid, thoroughly clean and free of oil, wax, grease, asphalt, latex and gypsum compounds, curing and sealing compounds, and any contaminant that might act as a bond breaker. If necessary, mechanically clean the floor down to sound, solid concrete by shot blasting, scarifying or similar. Overwatered, frozen or otherwise weak concrete surfaces must also be cleaned down to sound, solid concrete by mechanical methods. Acid etching, adhesive removers, solvents and sweeping compounds are not acceptable means of cleaning the substrate. Sanding equipment is not an effective method to remove curing and sealing compounds. Substrates must be dry for a successful installation. Substrate and ambient temperatures must be a minimum of 50°F (10°C) for the installation of ARDEX products. For further information, please refer to the ARDEX Substrate Preparation Brochure.

Recommended Tools

ARDEX T-2 Ring Mixing Paddle, mixing bucket, wood or magnesium float, steel trowel and a 1/2" heavy-duty drill (12mm, min. 650 rpm).

Priming

While no primer is required to obtain a solid bond when installing ARDEX SD-P over standard absorbent concrete, ARDEX P 51™ PRIMER can be used to prime a concrete substrate prior to installing ARDEX SD-P. The use of ARDEX P 51 will improve the workability of the product, prevent it from drying out too fast, and help to ensure that any residual dust on the surface of the concrete will be bound up so that it will not interfere with the bond. Mix the ARDEX P 51 with an equal of part water and prime the properly prepared concrete surface using a soft bristle push broom. Allow the primer to dry (min. 3 hours, max. 24 hours).

Non-porous substrates such as burnished concrete, terrazzo, quarry and ceramic tile, and epoxy coatings must be primed with ARDEX P 82™ ULTRA PRIME. Follow the mixing instructions on container and apply with a short-nap or sponge paint roller, leaving a thin coat of primer. Do not leave any bare spots. Brush off puddles and excess primer. Allow primer to dry to a thin, slightly tacky film (min. 3 hours, max. 24 hours).

Mixing And Application

For one 40 lb (18 kg) bag of ARDEX SD-P, use 4 quarts (3.8 liters) of water. For one 20 lb (9 kg) bag of ARDEX SD-P, use 2 quarts (1.9 liters) of water. Pour the clean water in the mixing bucket first, and then add the ARDEX SD-P. For best results, mix with an ARDEX T-1 Mixing Paddle and 1/2" heavy-duty drill. To mix smaller quantities by hand, use 3.5 parts powder to one part water by volume. Use a margin trowel and mix vigorously for 2 to 3 minutes. Just prior to application on the substrate, the mixture should be stirred again to ensure a creamy, smooth, lump-free consistency. The pot life of ARDEX SD-P is approximately 15 to 20 minutes at 70°F (21°C). If surface skinning occurs within this time, remix before using. **Do not add more water.**

After mixing, apply the mix to the substrate with a wood or magnesium float to obtain a solid mechanical bond. Allow the patch to take a set, then finish the surface using a steel trowel.

Thickness of Application

ARDEX SD-P can be installed from a featheredge up to 1" (2.5 cm) over large areas, and up to 3" (7.6 cm) with the addition of proper aggregate in areas up to 4 sq. ft. (0.37 m²)

For areas thicker than 1", mix ARDEX SD-P with washed and well-graded 1/8" to 1/4" pea gravel. Mix ARDEX SD-P with water first, then add up to 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.

Wear Surface

ARDEX SD-P is not to be used as a permanent wear surface, even if coated or sealed. ARDEX SD-P must be covered by a suitable floor covering material such as carpet, vinyl flooring, ceramic tile, etc. For resurfacing indoor concrete floors in warehouses, storage areas, hallways or other areas where a wear surface is required, use ARDEX SD-M™, ARDEX SD-T, ARDEX K 500 or ARDEX K 301.

Installation of Flooring

As soon as the ARDEX SD-P can be worked on without damaging the surface (approx. 1 hour), standard floor covering such as ceramic tile, VCT (vinyl composition tile), sheet vinyl and carpeting can be installed. Wood parquet,

athletic flooring and flooring requiring special adhesives that are sensitive to the presence of moisture (such as epoxies or urethanes) can be installed after 16 hours. All flooring adhesives that are compatible with concrete are compatible with ARDEX SD-P.

Because many different types of adhesives are used to install floor covering, their absorbency into cementitious substrates can vary significantly. If it is found that the adhesive being used is drying more quickly over the ARDEX SD-P than over adjacent concrete, we recommend that the surface of the underlayment be primed with ARDEX P 51 PRIMER diluted 1:3 with water. Allow the primer to dry thoroughly for 1 to 3 hours, and proceed with the installation of the adhesive. The use of the primer will even out the open time of the adhesive without affecting the bond or the long-term performance.

Notes

This product is intended for interior use over dry substrates only. Do not use in areas of constant water exposure, or in areas exposed to permanent or intermittent substrate moisture, as this may jeopardize the performance of the underlayment and the floor covering. This product is not a vapor barrier and will allow free passage of moisture. Follow the directives of the floor covering manufacturer regarding the maximum allowable substrate moisture content, and test the substrate prior to installing ARDEX SD-P. Where substrate moisture exceeds the maximum allowed, ARDEX recommends the use of the ARDEX Moisture Control Systems, for further information, please refer to the ARDEX Technical Brochure.

Always install an adequate number of properly located test areas, including the finish flooring, to determine the suitability of the products for the intended use. As floor coverings vary, always contact and rely upon the floor covering manufacturer for specific directives such as maximum allowable moisture content, adhesive selection and intended end use of the product.

Low substrate temperatures and/or high ambient humidity require longer drying times for ARDEX primers. Do not install ARDEX SD-P before the primer has dried thoroughly.

Never mix with cement or additives other than ARDEX approved products. Observe the basic rules of concrete work. Do not install below 50°F (10°C) surface and ambient temperatures. Install quickly if the substrate is warm, and follow warm weather instructions available from the ARDEX Technical Service Department.

To preserve its freshness, ARDEX SD-P powder must be protected from air while not in use. Protect unused material by removing the air from the bag and sealing tightly. Open and reseal as necessary.

Precautions

ARDEX SD-P contains Portland cement and sand aggregate. Avoid eye and skin contact. Mix in a well-ventilated area and avoid breathing powder or dust. KEEP OUT OF REACH OF CHILDREN. Carefully read and follow all cautions and warnings on the product label. For complete safety information, please refer to the Material Safety Data Sheet or visit our website at www.ardex.com.

Technical Data According to ARDEX Quality Standards

All data based on a mixing ratio of 3.5 parts powder to 1 part water by volume at 70°F (21°C)

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| Mixing Ratio: | 4 quarts (3.8 L) of water per one 40 lb. (18 kg) bag 2 quarts (1.9 L) of water per 20 lb (9 kg) bag For smaller batches, use 3.5 parts powder to 1 part water |
| Coverage: | 50 sq. ft. (4.6 m ²) per 40 lb. bag at 1/8" (3 mm) 25 sq. ft. (2.3 m ²) per 40 lb. bag at 1/4" (6 mm) 25 sq. ft. (2.3 m ²) per 20 lb. bag at 1/8" (3 mm) 12.5 sq. ft. (1.16 m ²) per 20 lb. bag at 1/4" (6 mm) |
| Initial Set (ASTM C191): | Approx. 15 minutes |
| Final Set (ASTM C191): | Approx. 60 minutes |
| Compressive Strength: ASTM C109/mod – Air cure only | 4200 psi (295 kg/cm ²) at 28 days |
| Flexural Strength: (ASTM C348) | 1000 psi (70 kg/cm ²) at 28 days |
| Install Floor Covering: | 60 minutes |
| VOC: | 0 g/L, calculated SCAQMD 1168 |
| Packaging: | 40 lb (18 kg) net weight bags 20 lb (9 kg) net weight bags |
| Storage: | Store in a cool dry area. Do not expose bags to sun. Protect unused material by removing air from bag and sealing tightly. |
| Shelf Life: | Nine months if unopened |
| Warranty: | ARDEX Engineered Cements Standard Limited Warranty |

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