



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

Usage

ARDEX SD-P[®] is a Portland cement-based, self-drying, fast setting, trowelable patch for smoothing and repairing concrete floors, ramps, 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.

Description

ARDEX SD-P sets quickly so that a smooth, steel-troweled surface can be obtained readily. The finished surface hardens rapidly permitting the installation of most common floor coverings to proceed immediately – no additional drying time is required. 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. It was developed to reduce curing time on pressed-for-time jobs.

Subfloor 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, the use of adhesive removers or solvents, and sweeping compounds are not acceptable means of cleaning the substrate. The use of sanding equipment is not an effective method to remove curing and sealing compounds. Substrates must be dry for a successful installation. Substrate 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-1 Mixing Paddle, mixing bucket, wood or magnesium float, steel trowel, and a 1/2" heavy-duty drill (min. 650 rpm).

Priming

No primer is required before applying ARDEX SD-P to standard absorbent concrete.

Non-porous substrates, burnished concrete, terrazzo, quarry and ceramic tile, and epoxy coatings must be primed with ARDEX P 82 ULTRA PRIME. Follow 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). ARDEX P 82 must be applied in a thin layer within one hour of mixing. A thick application will produce a soft rubbery surface that can result in cracking of the ARDEX SD-P.

Mixing And Application

For one 40 lb. bag of ARDEX SD-P use 4 quarts (3.8 liters) of water. For one 20 lb. bag of ARDEX SD-P use 2 quarts (1.9 liters) of water. Put clean water in the mixing container 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 1/2 parts by volume of powder to one part of water. 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 15-20 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.

As soon as the ARDEX SD-P can be worked on without damaging the surface (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.

Due to variability in the wide range of adhesives used for the installation of floor covering materials, especially waterborne adhesives, their absorbency into cementitious substrates can also vary. 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 1-3 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.

Thickness Of Application

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

For areas with a thickness greater than 1", mix ARDEX SD-P with washed and well-graded 1/8"-1/4" pea gravel. Mix ARDEX SD-P with water first, then add up to 1 part by volume of aggregate, mixing until the aggregate is completely coated. Do not use sand. If aggregate is wet, reduce the amount of water to avoid overwatering.

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 ARDEX MC™ MOISTURE CONTROL SYSTEM. For further information, please refer to the Ardex Technical Brochures.

Always install an adequate number of properly located test areas, to include the finish flooring, to determine the suitability of the product for its 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 primer has dried thoroughly.

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 product label.

Physiologically and ecologically friendly when set. 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 temperature. Install quickly if substrate is warm and follow hot weather instructions available from the ARDEX Technical Service Department.

Technical Data According To Ardex Quality Standards

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

Mixing Ratio:	4 quarts of water per one 40 lb. bag; 2 quarts of water per 20 lb. bag. For smaller batches, use 3.5 parts powder to 1 part water.
Coverage:	50 sq. ft. per 40 lb. bag at 1/8"; 25 sq. ft. per 40 lb. bag at 1/4" 25 sq. ft. per 20 lb. bag at 1/8" 12.5 sq. ft. per 20 lb. bag at 1/4"
Initial Set (ASTM C191):	Approx. 15 minutes at 70°F (21°C)
Final Set (ASTM C191):	Approx. 60 minutes at 70°F (21°C)
Compressive Strength (ASTM C109/mod – Air cure only):	4200 psi at 28 days
Flexural Strength (ASTM C348):	1000 psi at 28 days
Flammability (ASTM E84):	Flame Spread -0- Fuel Contribution -0- Smoke Development -0-
Install Floor Covering:	60 minutes at 70°F (21°C)
Packaging:	40 lb./18 kg net weight in paper bags; 20 lb./9 kg net weight in paper 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:	Six months unopened
Warranty:	Ardex Engineered Cements Standard Limited Warranty applies.

Country specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may effect specific installation recommendations.

Limited Warranty

Ardex, L.P. warrants that if this product proves to have manufacturing defects and ARDEX is notified of such within six months from the date ARDEX shipped the product, ARDEX will replace the defective product f.o.b. factory. Such product replacement shall constitute the sole and exclusive remedy for any claim under this warranty. ARDEX does not authorize anyone, including ARDEX Representatives, to make any statements which supersede, modify or supplement the information provided on its printed literature or package labels without written confirmation from the Ardex Technical Service Department. Any installations proceeding without this confirmation, or misinstallations of the product, will void this warranty. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, OR STATUTORY, AND IS STRICTLY LIMITED TO ITS TERMS. ARDEX MAKES NO WARRANTY OF MERCHANTABILITY OR SUITABILITY OF ITS PRODUCTS FOR ANY PARTICULAR PURPOSE. All product demonstrations are placed for illustrative purposes only and do not constitute a warranty of any kind. ARDEX SELLS ITS PRODUCTS UPON THE CONDITION THAT CUSTOMERS SHALL CONDUCT THEIR OWN TESTS TO DETERMINE THE SUITABILITY OF THE PRODUCTS FOR THE CUSTOMERS' INTENDED PURPOSES. UNDER NO CIRCUMSTANCES WILL ARDEX BE LIABLE FOR ECONOMIC, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR LOSSES OF ANY KIND WHATSOEVER ARISING OUT OF OR OCCASIONED BY THE SELECTION, USE, INSTALLATION, OR REPLACEMENT OF THESE PRODUCTS.

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