



ARDEX SD-M™

Designer Floor Finish™

Portland cement-based

Use over concrete, terrazzo and existing tile, or over ARDEX underlayments and toppings

Provides a smooth, permanent finish for a variety of substrates

Easy to mix and apply

Mixes with water only, no primers or additives necessary

Micro-powder technology allows for greater coverage with excellent bond

Mold, mildew and stain resistant

Use for interior floors only

ARDEX ENGINEERED CEMENTS
400 Ardex Park Drive
Aliquippa, PA 15001 USA
Tel: 724-203-5000
Toll Free: 888-512-7339
Fax: 724-203-5001
www.ardex.com

ARDEX SD-M™

Designer Floor Finish™

Usage

ARDEX SD-M™ can be installed indoors over concrete and certain non-porous substrates to provide a hard, flat, smooth ARDEX DESIGNER FLOORS™ finish for areas such as retail, hospitality, lobbies and all interiors requiring such a surface. ARDEX SD-M can also be installed to achieve a finished concrete surface in warehouses, utility rooms and light manufacturing. ARDEX SD-M mixes with water only to a creamy, smooth consistency for easy application. Engineered around a self-drying, Portland cement-based matrix, all of the mix water is chemically combined within the product itself.

Description

ARDEX SD-M is a self-drying, trowelable, Portland cement-based topping installed in a two-coat system for fast track resurfacing and smoothing of indoor subfloors. ARDEX SD-M can be integrally colored or used with topical dyes and stains, and provides a flat, smooth surface over all types of interior concrete, cementitious terrazzo, existing ceramic tile subfloors, and ARDEX toppings or underlayments. Installs at a minimum thickness of only 20 mils (0.020"). ARDEX SD-M hardens fast due to its unique self-drying formulation. It can be coated with a waterborne concrete sealer just 2 hours after installation, and opened to traffic as soon as the sealer has fully dried.

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. The use of sanding equipment is not an effective method to remove curing and sealing compounds. 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-2 Ring Mixing Paddle, mixing bucket, margin trowel, steel trowel, razor scraper, and a 1/2" heavy-duty drill (min. 650 rpm).

Priming

Standard absorbent concrete and ARDEX underlayments or toppings:

While no primer is typically required, certain very porous surfaces may cause pinholes to develop in the ARDEX SD-M layer. If pinholes are a problem, make an application of ARDEX P 51™ PRIMER diluted with 3 parts water. Apply evenly with a soft pushbroom. 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) and install the ARDEX SD-M as directed.

Non-porous subfloors: Certain non-porous surfaces, such as epoxy coatings, may require priming with ARDEX P 82™ ULTRA PRIME to achieve a solid bond. Mix Part A (red) with Part B (white) and apply in as thin a layer as possible using a squeegee or a short-nap or sponge paint roller. Leave a thin coat of primer no heavier than a thin coat of paint. Do not leave any bare spots. Brush off puddles and excess primer. Allow drying to a thin, slightly tacky film (min. 3 hours, max. 24 hours).

Other non-absorbent substrates, such as terrazzo, ceramic, and stone tiles, may require priming with ARDEX EP 2000™ SUBSTRATE PREPARATION EPOXY. Follow the general recommendations for substrate preparation. Apply the ARDEX EP 2000 carefully following the instructions given in the ARDEX Technical Brochure.

Mixing And Application

For one 10 lb bag of ARDEX SD-M, use 2 quarts (1.9 liters) of clean water. Put the water in the mixing container first, and then add the ARDEX SD-M. For best results, mix with an ARDEX T-2 Ring Mixing Paddle and a 1/2" heavy-duty drill. To mix smaller quantities by hand, use 2 1/2 parts by volume of powder to 1 part of water for the scratch and finish coat. For filling pop-outs and spalls up to 2" in diameter and 1/2" deep, use 3 1/2 parts by volume of powder to 1 part of water. Use a margin trowel and mix vigorously for 2 to 3 minutes. Do not overwater! 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-M is approximately 30 to 40 minutes at 70°F (21°C). If hardening starts to occur within this time, remix before using.

After mixing, apply a scratch coat of the mix to the substrate with the flat side of a steel trowel to obtain a solid mechanical bond. Apply sufficient pressure to fill all defects and to feather the product onto the subfloor surface. It is necessary to have a minimum of two coats of ARDEX SD-M with a total finished thickness of 20 mils (about the thickness of a standard business card). Use the least amount possible to attain the desired smoothness.

The scratch coat, or base coat, should be applied to pre-smooth and achieve a uniformly absorbent surface. The finish coat may be applied as soon as the trowel will not damage the base coat. A third application of ARDEX SD-M is optional depending on the desired finish and texture. This application is used primarily to achieve a very smooth, troweled finish. Total thickness should not exceed 1/16".

The surface of ARDEX SD-M must always be protected from oil, salt, water and surface wear by applying a suitable protection system, such as concrete sealer or paint. Ardex recommends the use of ARDEX CG CONCRETE GUARD™ to seal ARDEX SD-M that will be exposed to normal foot traffic. Sealing with ARDEX CG™ can proceed as soon as the surface of the ARDEX SD-M hardens sufficiently to work on without damaging it (approx. 2-3 hours under standard conditions of 70°F (21°C) and 50% RH). Low ambient temperatures and/or high humidity can extend this time. The floor can be open to traffic as soon as the ARDEX CG has dried to Ardex recommendations. For installation instructions for ARDEX CG, please refer to the Ardex Technical Brochure.

For certain ARDEX DESIGNER FLOOR applications, ARDEX STONE OIL™ may be specified. For installation instructions, please refer to the Ardex Technical Brochure.

For areas to receive heavier traffic, as well as areas such as restaurants and food courts, sealing should be done using an epoxy coating. As the performance of epoxy flooring systems varies greatly, the installer is responsible for assessing the suitability of these coatings. Typically, thin applications (20 mils) of solvent-borne coatings can proceed after 24 hours of drying at 70°F (21°C). Thicker applications, as well as the use of high solids polymer coatings, will require a minimum drying time for the ARDEX SD-M of 3-5 days at 70°F (21°C).

ARDEX SD-M wear surfaces are intended for foot and moderate, rubber-wheeled fork-lift traffic and similar uses. Excessive service conditions, such as steel – or hard plastic-wheeled traffic, or the dragging of heavy metal equipment or loaded pallets with protruding nails over the floor, will cause gouging and indentations. ARDEX SD-M is not a resurfacing topping for heavy-duty manufacturing, industrial floors, or for chemical environments requiring customized industrial toppings.

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 topping and sealer. This product is not a vapor barrier and will allow free passage of moisture. **Follow the directives of the sealer manufacturer regarding the maximum allowable substrate moisture content, and test the substrate prior to installing ARDEX SD-M.** Where substrate moisture exceeds the maximum permitted, Ardex recommends the use of the ARDEX MC™ MOISTURE CONTROL SYSTEM. For further information, please refer to the Ardex Technical Brochure.

Always install an adequate number of properly located test areas, including the finish sealer, to determine the suitability of the product for the intended use. As sealers vary, always contact and rely upon the sealer manufacturer for specific directives such as maximum allowable moisture content, sealer selection and the 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-M before the primer has dried thoroughly.

To preserve its freshness, ARDEX SD-M 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.

ARDEX SD-M must be worked at temperatures over 50°F (10°C).

Precautions

ARDEX SD-M contains Portland cement. 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.

Physiologically and ecologically friendly when set. Never mix with cement or additives other than Ardex approved products. Observe the basic rules of cement work. Do not install below 50°F (10°C) surface temperature.

Technical Specifications According To Ardex Quality Standards

(All data based on a mixing ratio of 2.5 parts powder to 1 part by volume of water at 70°F (21°C).)

Mixing Ratio:	2 qts. of water to one 10 lb bag; for smaller batches, use 2½ parts powder to 1 part water for the scratch and finish coat, or 3½ parts powder to 1 part water for filling small spalls.
Coverage:	80-100 sq. ft. per bag in 2 coats (Actual coverage will vary)
Initial Set (ASTM C191):	Approx. 45 minutes at 70°F (21°C)
Final Set (ASTM C191):	Approx. 90 minutes at 70°F (21°C)
Compressive Strength (ASTM C109/mod – Air cure only):	5000 psi at 28 days
Flexural Strength (ASTM C348):	1200 psi at 28 days
Flammability (ASTM E84):	Flame Spread -0- Fuel Contribution -0- Smoke Development -0-
Walkable:	2 hours at 70°F (21°C)
Install Sealer:	Waterborne: When hard (approx. 2 hours at 70°F (21°C)) Solvent-borne or 100% solids epoxy (less than 20 mils): 24 hours at 70°F (21°C) High build polymer coating (greater than 20 mils): 3-5 days at 70°F (21°C)
Colors Available:	Gray and White
Packaging:	10 lb (4.5 kg) bag net weight
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
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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ARDEX ENGINEERED CEMENTS
400 Ardex Park Drive
Aliquippa, PA 15001 USA
Tel: 724-203-5000
Toll Free: 888-512-7339
Fax: 724-203-5001
www.ardex.com