



ARDEX SD-T®

Self-Drying, Self-Leveling, Concrete Topping

**Portland cement-based
Resurface indoor concrete
Walk on in 3 hours
6100 psi**

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Description

ARDEX SD-T® is a self-drying, self-leveling, no troweling, Portland cement-based topping for fast track resurfacing, smoothing, or leveling of indoor concrete. Installs from ¼" to 2" in one operation, and up to 5" with the addition of appropriate aggregate. ARDEX SD-T® hardens fast due to its unique self-drying formulation – can be coated with a water-borne concrete sealer just 2 hours after installation and opened to traffic as soon as the sealer has fully dried. ARDEX SD-T® can be installed indoors over concrete and certain non-porous substrates to provide a hard, flat, smooth surface for warehouses, utility rooms, and light manufacturing. ARDEX SD-T® can also be installed to achieve an ARDEX DESIGNER FLOORS™ finish in areas such as retail, television studios, and all interiors requiring such a surface.

Subfloor Preparation

All concrete substrates must be solid, thoroughly clean and free of oil, wax, grease, asphalt, latex compounds, curing and sealing compounds, and any contaminant that might act as a bondbreaker. 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. Subfloors must be dry and properly primed for a successful installation. Substrate temperatures must be a minimum of 50°F for the installation of ARDEX products. For further information, please refer to the Ardex Substrate Preparation Brochure.

Recommended Tools

ARDEX T-1 Mixing Paddle, ARDEX T-10 Mixing Drum, ARDEX T-4 Spreader, ARDEX T-5 Smoother, ARDEX MB-5.0 Measuring Bucket (5.0 qts. for 50 lb. bag), and a ½" heavy-duty drill (min. 650 rpm).

Priming

Standard absorbent concrete or "non-designer" installations (using ARDEX SD-T® as a warehouse floor or in a mechanical room where aesthetics are not critical) requires two applications of ARDEX P 51 PRIMER to avoid the formation of bubbles and pinholes in the finished ARDEX SD-T®. In such cases, make an initial application of ARDEX P 51 diluted with 3 parts by volume of 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. Let dry thoroughly (1 to 3 hours) to a clear, thin film. Follow with a second

application of ARDEX P 51 mixed 1:1 with water using the same method. Brush off puddles and excess primer. Allow to dry to a clear, thin film (min. 3 hours, max. 24 hours). It is essential to ensure that both layers of primer dry completely before proceeding with the installation of ARDEX SD-T®.

Non-absorbent substrates such as terrazzo, ceramic and stone tiles, and installations of ARDEX DESIGNER FLOORS over concrete, must be primed with ARDEX EP 2000 SUBSTRATE PREPARATION EPOXY. Follow the general recommendations for substrate preparation above. Apply the ARDEX EP 2000 carefully following the instructions given in the ARDEX EP 2000 Technical Brochure.

Mixing And Application – Manually

ARDEX SD-T® is mixed in 2-bag batches at one time. Mix each 50 lb. bag with 5.0 quarts (4.75 liters) of water. Put the water in the mixing drum first, then add each bag of ARDEX SD-T® while mixing with an ARDEX T-1 Paddle and a ½" heavy-duty drill (min. 650 rpm). Mix thoroughly for approximately 2 to 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.

ARDEX SD-T® has a flow time of 10 minutes at 70°F. Pour the liquid mix on the floor and spread with the ARDEX T-4 Spreader. Immediately smooth the material with the ARDEX T-5 Smoother. Wear baseball or soccer shoes with non-metallic cleats to avoid leaving marks in the liquid ARDEX SD-T®.

Mixing And Application – Pumping

ARDEX SD-T® can be pumped using the ARDEX Levelcraft Automatic Mixing Pump. The Levelcraft Pump provides for high productivity and a smooth, consistent installation. The pump may be rented from an authorized ARDEX Distributor and is supported by the Ardex Technical Service Department.

Start the pump at a water setting of 150 gallons per hour, and then adjust to the minimum water reading that allows self-leveling properties. Do not overwater! Check the consistency of the product on the floor to ensure a uniform distribution of the sand aggregate at both the top surface and bottom of the pour. Conditions during the installation such as variations in water, powder, substrate and ambient temperature, require that the water setting be adjusted during installation to avoid overwatering.

ARDEX SD-T® has a flow time of 10 minutes at 70°F. Pump the liquid mix on the floor and spread with the ARDEX T-4 Spreader. Immediately smooth the material with the ARDEX T-5 Smoother. Wear baseball or soccer shoes with non-metallic cleats to avoid leaving marks in the liquid ARDEX

SD-T®. Contact the ARDEX Technical Service Department for complete pump installation instructions.

Thickness of Application

ARDEX SD-T® can be installed from 1/4" to 2" in one application. ARDEX SD-T® can also be tapered to meet existing elevations in places such as thresholds. For pre-leveling and areas to be installed from 2" to 5" thick, mix ARDEX SD-T® with washed and well-graded 1/8"-1/4" pea gravel or larger. Mix ARDEX SD-T® 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.

The addition of aggregate will diminish the workability of the product and may make it necessary to install a finish coat to obtain a smooth surface. Allow the initial application to dry for 12-16 hours.

For warehouse and similar applications previously described, prime the pre-leveling course using the "double-prime" method with ARDEX P 51. For ARDEX DESIGNER FLOOR applications, the pre-leveling course must be primed with ARDEX EP 2000. Note that for ARDEX DESIGNER FLOOR installations requiring a pre-leveling course over standard absorbent concrete, only the finish layer requires the use of ARDEX EP 2000.

Wear Surfaces

The surface of ARDEX SD-T® 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-T® that will be exposed to normal foot traffic. Sealing with ARDEX CG can proceed as soon as the surface of the ARDEX SD-T® hardens sufficiently to work on without damaging the surface (approx. 2-3 hours under standard conditions of 70°F and 50% RH). Low ambient temperatures and/or high humidity can extend this time. Traffic can proceed 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 thick) of solvent-borne coatings

can proceed after 24 hours of drying at 70°F. Thicker applications and the use of high solids polymer coatings will require a minimum drying time for the ARDEX SD-T® of 3-5 days at 70°F.

ARDEX SD-T® 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, dragging heavy metal equipment or loaded pallets with protruding nails over the floor, will cause gouging and indentations. ARDEX SD-T® is not a resurfacing topping for heavy-duty manufacturing or industrial floors, or in 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-T®.** 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 Brochure.

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

Precautions

ARDEX SD-T® 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 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 4 parts powder to 1 part by volume of water at 70°F)

Mixing Ratio:	5 quarts of water per one 50 lb. bag
Coverage:	25 sq. ft. per bag at 1/4"; 12.5 sq. ft. per bag at 1/2"
Flow Time:	10 minutes at 70°F
Initial Set (ASTM C191):	Approx. 10 minutes at 70°F
Final Set (ASTM C191):	Approx. 45 minutes at 70°F
Compressive Strength (ASTM C109/mod – Air cure only):	6100 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:	3 hours at 70°F
Install Sealer:	Water-borne: When hard Solvent-borne: 24 hours at 70°F High build polymer coating (greater than 20 mils): 3-5 days at 70°F
Colors Available:	Gray, White
Packaging:	50 lb./22.7 kg net weight in paper bags
Storage:	Store in a cool dry area. Do not expose bags to sun.
Shelf Life:	Six months
Warranty:	Ardex Engineered Cements Standard Limited Warranty applies.

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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