ARDEX DS 70™

Acoustic Mat

Use for sound reduction under tile, stone or wood floor coverings

Dual protection sound reduction and crack isolation (up to 1/8" / 3 mm)

Can set tile and stone directly onto ARDEX DS 70 per ASTM C627

Ideal for use in condominiums, hotels and office buildings

ARDEX DS 70 Systems achieve up to an Extra Heavy Commercial rating (Robinson Test) per ASTM C627

Use on above-grade wood or concrete substrates

ARDEX DS 70™ Acoustic Mat is a high-performance, flat, resilient, sound-control underlayment made from a formulation of high-quality, post-consumer-recycled, wear- and water-resistant rubber granules

Environmentally friendly – made from 92% recycled rubber

Fast and easy installation using HENRY® 971 EZ Plus+

Available in a 2 mm or 5 mm thickness

ARDEX Americas
400 Ardex Park Drive
Aliquippa, PA 15001 USA
888-512-7339
www.ardexamericas.com

ARDEX DS 70™

Acoustic Mat

Suitable Substrates

- Above-grade concrete
- Above-grade wood

Suitable Applications

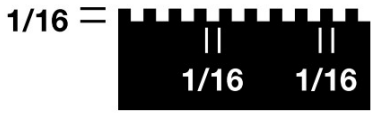
- Directly under hard surface flooring (tile, stone and wood) for sound reduction*
- Crack isolation up to 1/8" (3 mm)
- Setting tile and stone directly onto ARDEX DS 70 per ASTM C627
- Condominiums, hotels and office buildings

* No travertine tile; no marble tile over 5 mm mat.

Recommended Tools

Utility knife, straight edge, appropriate notch trowel, 35 - 100 lb. roller

Trowels & Coverage

2 mm DS 70	1/32" x 1/16" x 1/32" (1 x 1.5 x 1 mm) 680-FFA 
5 mm DS 70	1/16" x 1/16" x 1/16" (1.5 x 1.5 x 1.5 mm) 680-FCA 

Recommended trowel size is a guideline only and is a minimum requirement.

Jobsite Conditions

Acclimate the installation area, setting material, ARDEX DS 70 and finish flooring in an enclosed building at a minimum of 65°F (18°C) for at least 48 hours before, during and for 48 hours after installation.

Substrate and ambient temperatures must be a minimum of 50°F (10°C) for the installation of ARDEX products. Substrates must be dry during installation and cure.

Step 1: Preparation

Deliver all material to the jobsite in its original, unopened packaging under proper storage conditions.

It is the responsibility of the installation contractor to inspect the ARDEX DS 70 for visual defects and to verify that it is the correct thickness and type before beginning the installation. Refer to the flooring manufacturer's specific recommendations.

All substrates must be smooth and flat with a maximum variance of 1/4" in 10' (6 mm in 3 m) from the required plane per TCNA guidelines or as recommended by the flooring manufacturer (default to the most stringent requirement).

Fill all cracks, holes and low spots with ARDEX SKM™ Skimcoat Patch & Finishing Underlayment, ARDEX FEATHER FINISH® Self-Drying, Cement-Based Finish Underlayment, ARDEX Liquid BackerBoard® Self-Leveling Underlayment for Interior Wood and Concrete Subfloors, ARDEX V 1300™ High Flow Self-Leveling Underlayment or ARDEX V 1000™ Self-Leveling Underlayment (concrete only).

The flooring system must be protected from excessive moisture. Always perform moisture and alkali tests for concrete on any grade level. Moisture test results should meet the flooring manufacturer's recommendations but should not exceed 85% RH as determined by the relative humidity test method (ASTM F2170). Alkali readings should be a maximum pH 10. Where substrate moisture and/or alkali exceeds the maximum allowed, please contact the ARDEX Technical Service Department.

Step 2: Substrate Preparation

For each of the substrates listed below, acid etching, adhesive removers, solvents and sweeping compounds are not acceptable means for cleaning the substrate.

For full details on Proper Prep, reference the following articles at www.ardexamericas.com/services/properprep:

- Article 1: Preparing Concrete for Bonded ARDEX or HENRY Applications
- Article 1.1: Preparing Concrete for ARDEX Underlayments
- Article 2: Preparing Wood for Bonded ARDEX Applications
- Proper Prep Brochure

Note on Asbestos-Containing Materials

Please note that when removing existing flooring, any asbestos-containing materials should be handled and disposed of in accordance with applicable federal, state and local regulations.

Above-Grade Concrete

All concrete substrates must be solid, structurally sound, thoroughly clean, thoroughly cured, dry and free of oil, wax, grease, asphalt, latex and gypsum compounds, curing compounds, sealers and any contaminant that might act as a bond breaker.

If necessary, mechanically clean the floor down to sound, solid concrete by shot blasting or similar. Over-watered, frozen or otherwise weak concrete surfaces also must be cleaned down to sound, solid concrete by mechanical methods. Sanding equipment is not an effective method to remove contaminants from concrete.

Above-Grade Wood

The wood subfloor must be constructed according to prevailing building codes and must be solid and securely fixed to provide a rigid base free of undue flex. For tile installations, the subfloor must be constructed in accordance with ANSI L/360 standards. Any boards exhibiting movement must be re-nailed.

The surface of the wood must be clean and free of oil, grease, wax, dirt, varnish, shellac and any contaminant that might act as a bond breaker. If necessary, sand down to bare wood. A commercial drum sander can be used to sand large areas. Do not use solvents, strippers or cleaners. Vacuum all dust and debris. Open joints should be filled with ARDEX SKM.

It is the responsibility of the installation contractor to ensure that the wood subfloor is thoroughly clean and properly anchored prior to the installation of any ARDEX material.

Step 3: Joints and Cracks

Under no circumstances should ARDEX DS 70 be installed over any moving joints or moving cracks. All existing expansion joints, isolation joints and construction joints, as well as all moving cracks, must be honored up through the underlayment and flooring.

As needed, dormant cracks and dormant control joints can be filled with ARDEX SKM, following the instructions in the technical brochure.

However, please be advised that while dormant control joints and dormant cracks in the slab may be filled with ARDEX SKM prior to installing ARDEX DS 70, this filling is not intended to act as a repair method that will eliminate the possibility of joints and cracks telegraphing into the finish flooring. ARDEX SKM and ARDEX DS 70 are non-structural materials and are, therefore, unable to restrain movement within a concrete slab.

This means that while some dormant joints and dormant cracks may not telegraph through the ARDEX materials and up into the finish flooring, cracks will telegraph in any area that exhibits movement, such as an active crack, an expansion or isolation joint, or an area where dissimilar substrates meet. We know of no method to prevent this telegraphing from occurring.

Step 4: Perimeter Isolation

It is essential to install the ARDEX UD 146 Edge Insulation Strip before placing and trimming the ARDEX DS 70 Acoustic Mat.

Made from polyethylene foam, the ARDEX UD 146 Edge Insulation Strip is a flat, resilient strip that is used to build a tub around the floor so that no hard surface (floor covering) touches any hard vertical surface (protrusion or wall).

Attach the self-adhesive ARDEX UD 146 Edge Insulation Strip to the perimeter wall of the entire subfloor as well as around the perimeter of any protrusions. The ARDEX UD 146 Edge Insulation Strip will later be trimmed flush with the new top layer of flooring above the ARDEX DS 70.

Note: Assume the walls you are butting against are not square. Using a chalk line, create a starting point for an edge of the material to follow.

Step 5: Acoustic Mat Installation

ARDEX 8+9 should be used where waterproofing is required. Contact ARDEX Technical Service for instructions on the use of ARDEX 8+9.

Remove the shrink-wrap from the roll of ARDEX DS 70, and unroll it onto the floor. Shaking the material once as it is unrolled can help it to relax.

Place the ARDEX DS 70 so that it is perpendicular to the subsequent installation direction of the finish flooring. Trim the ends of each section as necessary in order to fit the surface area to be covered. Align the lengthwise edge of the material exactly with that of the neighboring section. Edges must contact but not overlap.

Fold the first drop lengthwise (half the width of the roll). Spread HENRY® 971 EZ Plus+ using the proper trowel size.

Note: Temperature and humidity affect the open time of HENRY® 971 EZ Plus+. The installer should monitor on-site conditions and adjust open time accordingly.

Carefully lay the ARDEX DS 70 into the wet HENRY® 971 EZ Plus+. DO NOT let the material fall, as this will trap air beneath the material. Never leave adhesive ridges or puddles as they may telegraph through the material up into the finish flooring.

Note: Within 45 minutes of each drop, roll the ARDEX DS 70 with a 35 lb. roller (2 mm) or 75-100 lb. roller (5 mm) to ensure proper transfer of adhesive. Overlap each pass of the roller by 50% of the previous pass to ensure that the floor is properly rolled.

Fold over second half of the first sheet and first half of the second sheet. Spread the adhesive. At seam area, spread adhesive at 90 degrees to seam to prevent excessive oozing up to the surface of the material.

Continue the process for each consecutive drop, working at a pace such that you always are folding material back into wet adhesive.

Step 6: Finish Flooring

Install tile or stone materials with ARDEX X 77™ MICROTEC® Fiber Reinforced Tile and Stone Mortar, ARDEX X 78™ MICROTEC® Semi-Pourable Tile and Stone Mortar, ARDEX X 65™ Lite, ARDEX X 5™ Flexible and Versatile Tile and Stone Mortar or ARDEX X 32™ MICROTEC® Universal Rapid Setting and Drying, Thin-To-Thick Bed Mortar applied directly to the ARDEX DS 70. The mortar thickness must not exceed the maximum thickness of 3/8".

Install hardwood flooring using HENRY® 971 EZ Plus+ Moisture-Cured Urethane Wood Adhesive applied directly to the ARDEX DS 70.

Do not mechanically fasten any material through the ARDEX DS 70 as this will compromise the sound deadening performance of the ARDEX DS 70.

When the flooring installation is complete, trim any excess UD 146 Edge Insulation Strip so that it is flush with the surface of the finished floor.

Step 7: Baseboard

After the ARDEX UD 146 Edge Insulation Strip has been trimmed to finish floor height, install the baseboard. Affix the baseboard to the wall above the ARDEX UD 146 Edge Insulation Strip. The baseboard must not touch the finished floor.

Seal the entire perimeter with an ASTM C920 approved permanently flexible acoustical caulk, such as ARDEX SX™ 100% Silicone Sealant for Tile and Stone Applications.

Notes

Intended for use by professional contractors who are trained in the application of this product and/or similar products.

Dispose of packaging and residue in accordance with applicable regulations. Do not flush material down drains. Do not reuse packaging.

Precautions

Carefully read and follow all precautions and warnings on the product label. For complete safety information, please refer to the Safety Data Sheet (SDS) available at www.ardexamericas.com.

Evaluation of Improvement with ARDEX DS 70 (ΔIIC)

Tested per ASTM E2179 with tile floor covering.

5 mm: 19 dB

2 mm: 16 dB

ARDEX DS 70 Test Results (per ASTM E492, E90 and E1007)

Substrate	Ceiling	Floor Finish	ARDEX DS 70	IIC	STC
6" concrete	NO	Engineered Wood	2 mm	54	53
6" concrete	YES	Engineered Wood	2 mm	68	62
6" concrete	YES	Porcelain Tile	2 mm	58	62
6" concrete	NO	Bamboo	5 mm	51	70
7" concrete	NO	Bamboo	2 mm	54	55
7" concrete	NO	Laminate	2 mm	58	56
8" concrete	YES	Hardwood	2 mm	72	72
8" concrete	NO	Engineered Wood	5 mm	54	55
8" concrete	YES	Engineered Wood	5 mm	67	62
8" concrete	NO	Porcelain Tile	5 mm	51	57
TJI	YES	Ceramic Tile	2 mm	53	62
TJI	YES	Laminate	2 mm	58	61
TJI	YES	Engineered Wood	5 mm	50	58
Wood Joist	YES	Quarry Tile	5 mm	56	70
Wood Joist	YES	Laminate	2 mm	53	63
Wood Truss	YES	Ceramic Tile	5 mm	52	64

Robinson Test Results (per ASTM C627)

Substrate	Adhesive Used to Install ARDEX DS 70	Rating	ARDEX DS 70
Wood	HENRY® 971 EZ Plus+	Light Commercial	2 mm
Concrete	HENRY® 971 EZ Plus+	Moderate Commercial	2 mm
Wood	HENRY® 971 EZ Plus+	Light Commercial	2 mm
Concrete	HENRY® 971 EZ Plus+	Extra Heavy Commercial	2 mm
Concrete	ARDEX 8+9	Heavy Commercial	2 mm
Concrete	ARDEX 8+9	Extra Heavy Commercial	2 mm

In all cases, finish flooring is tile grouted with ARDEX FL™ Rapid Set, Flexible, Sanded Grout.

Made in the USA. © 2026 ARDEX, L.P. All rights reserved. Content updated 2026-10-09. Supersedes all previous versions. Latest version available at:

www.ardexamericas.com.

Technical Data According to ARDEX Quality Standards

Physical properties are typical values and not specifications.

Property and Test Method (as applicable)	Value
Packaging	**2 mm:** 48" (1.2 m) wide x 75' (22.9 m) long roll **5 mm:** 48" (1.2 m) wide x 30' (9.1 m) long roll **ARDEX UD 146 Edge Isolation Strip:** 3" (76 mm) wide x 65' (19.8 m) long rolls
Min. density (ASTM D297)	45 pcf (0.72 g/cm³)
Min. tensile strength (ASTM D412, Die C)	80 psi (6 kg/cm²)
Min. elongation (ASTM D412, Die C)	50%
Min. tear strength (ASTM D624, Die C)	30 ppi (5.4 kg/cm)
Compression at 100 psi (7 kg/cm²) (ASTM F36)	20-30%
Min. recovery at 100 psi (7 kg/cm²) (ASTM F36)	85%
Shore A hardness (ASTM D2240)	40
Max. flexibility (ASTM F147)	1 factor
Max. compression set B (25% deflection / 158°F (70°C) / 22 hrs. / ASTM D395)	40%
Coefficient of friction (ASTM D1894)	1.2
Sizes Available	2 mm Acoustic Mat – 48" wide x 75' long (1.2 m wide x 22.9 m long) roll; 5 mm Acoustic Mat – 48" wide x 30' long (1.2 m wide x 9.1 m long) roll; 6 mm Edge Insulation Strip – 3" wide by 65' long (76 mm wide by 19.8 m long) roll
Warranty	ARDEX L.P. Standard Limited Warranty. Also eligible for the ARDEX Americas 10-Year SystemOne™ Warranty when used in conjunction with select ARDEX products. Failure to follow written directions will void the warranty. For complete warranty details, please contact our Customer Service Center at 888-512-7339.

Visit www.youtube.com/ARDEX101 to watch ARDEX product demonstration videos. For recommended installation tools, visit DTA USA at www.dtausagroup.com. For easy-to-use ARDEX Product Calculators and Product Information On the Go, download the ARDEX App.

ARDEX Americas
400 Ardex Park Drive
Aliquippa, PA 15001 USA
888-512-7339
www.ardexamericas.com

Label Verbiage – ARDEX DS 70™

Packaging approaches aligning with our most recently created package artwork, such as that created for V 1300, are now blanket-approved by Technical.

Category Management will now be responsible for driving package design projects as well as ensuring accuracy and instructional completeness in accordance with agreed upon package design principles.