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# ARDEX TL WOOD™

## Self-Leveling Underlayment for Wood and Distressed Gypsum Subfloors

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Use over plywood, OSB, and strip wood flooring,  
as well as existing gypsum substrates, prior to the  
installation of new floor covering

Install ceramic tile in 48 hours and other floor  
coverings in 2-3 days

No metal lath required

Install from 1/4" up to virtually any thickness;  
can be tapered to 1/16"

Needs no special curing

Use for interior, above-grade floors only

Suitable for use with in-floor hydronic and electric  
radiant heating systems

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# ARDEX TL WOOD™

## Self-Leveling Underlayment for Wood and Distressed Gypsum Subfloors

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### Usage

ARDEX TL WOOD™ is a self-leveling underlayment used to smooth uneven, structurally sound plywood, OSB, and strip wood flooring without the use of metal lath. Ceramic tile can be installed in 48 hours and other floor coverings in 2-3 days. ARDEX TL WOOD can also be used over an existing gypsum substrate that is otherwise unsuitable to receive ceramic tile or other finish flooring. Additionally, ARDEX TL WOOD can be used over wood and gypsum floors that employ the use of hydronic or electric in-floor heating systems. For further information, please contact the ARDEX Technical Service Department for installation instructions.

### Description

ARDEX TL WOOD is a self-leveling underlayment used for wood and for repairing and finishing gypsum substrates above grade prior to the installation of new floor covering. Pourable or pumpable when mixed with water. Seeks its own level and produces a smooth, flat, hard surface. Hardens quickly and dries fast without shrinking, cracking, or spalling.

ARDEX TL WOOD is intended to smooth over building code-approved, structurally sound wood. It can also be used as a remedial material for distressed gypsum subfloors that have suffered degradation, and over wood or gypsum subfloors that contain hydronic heating tubes or low voltage electrical in-floor heating systems. It can be installed from 1/4" up to virtually any thickness to achieve the desired flatness tolerance. It can be walked on after 3 hours, and floor covering can be installed as soon as the underlayment has dried sufficiently for the floor covering selected. The drying time is a function of temperature, humidity, and the thickness at which the material is applied.

ARDEX TL WOOD can be used as a repair material for distressed gypsum floors under specific conditions where the decision not to remove and completely replace the gypsum with a durable Portland cement-based underlayment has been made. There are also jobsite conditions that may require that only a section of the gypsum be removed, completely exposing the original substrate. In such cases, the installation of ARDEX TL WOOD should be performed in a manner consistent with the original installation, i.e. if the gypsum was originally installed over wood, concrete, ceramic tile or extruded polystyrene insulation, follow the installation instructions for ARDEX TL WOOD under these conditions.

### Substrate Preparation

All existing 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 bond breaker. Mechanically clean the floor down to a sound, solid surface by shot blasting, scarifying or similar. Acid etching or the use of adhesive removers, solvents or sweeping compounds are not acceptable means of cleaning the substrate. The use of sanding equipment is only effective to remove sealers on wood substrates. Where applicable, prepare non-water-soluble adhesives down to a thin, well-bonded residue by wet scraping. Water-soluble adhesives must be mechanically removed. Wood and gypsum surfaces must be dry and properly primed 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.

Wood subfloors must either be solid hardwood flooring, a minimum of 3/4" tongue-and-groove, APA-rated Type 1, exterior exposure plywood, or an approved OSB underlayment board. 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. 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 a cementitious patch material. Do not use thin set mortar to seal the open joints. 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.

### Recommended Tools

ARDEX T-1 Mixing Paddle, ARDEX T-10 Mixing Drum, ARDEX T-4 Spreader, ARDEX T-5 Smoother, ARDEX MB-4.0 Measuring Bucket (4.0 qts. per 50 lb. bag), and a 1/2" heavy-duty drill (min. 650 rpm).

### Priming

Wood subfloors require priming with ARDEX P 51™ PRIMER at full strength (do not dilute). Apply directly to the prepared wood 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 drying to a clear, thin film (min. 3 hours, max. 24 hours).

Existing gypsum substrates or small areas of replacement over standard absorbent concrete require two applications of ARDEX P 51. The edges of the existing gypsum must also be primed. Make an initial application of ARDEX P 51 mixed 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), and install a second application of ARDEX P 51 mixed 1:1 with water as stated above. Allow drying to a clear, thin film (min. 3 hours, max. 24 hours).

Replacement of small areas down to the original substrate that include non-porous substrates, burnished concrete, terrazzo, quarry and ceramic tile or extruded polystyrene insulation must be primed with ARDEX P 82™ ULTRA PRIME. The edges of the existing gypsum must also be primed. Follow the mixing instructions on the 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 – Manually

ARDEX TL WOOD is mixed in 2 bags at a time. Each 50 lb. bag requires 4.0 quarts (3.8 liters) of water. Put the water in the mixing drum first, and then add each bag of ARDEX TL WOOD while mixing with an ARDEX T-1 Paddle and a 1/2" 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 TL WOOD has a flow time of 10 minutes at 70°F (21°C). Pour the liquid mix onto 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 TL WOOD. Do not install below 50°F (10°C) surface and air temperature.

### Mixing And Application – Pumping

ARDEX TL WOOD can be pumped using the ARDEX Levelcraft™ Automatic Mixing Pump. The Levelcraft Pump provides 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 130 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, and substrate and ambient temperature, require that the water setting be adjusted during installation to avoid overwatering.

ARDEX TL WOOD has a flow time of 10 minutes at 70°F (21°C). Pump the liquid mix onto 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 TL WOOD. Do not install below 50°F (10°C) surface and air temperature. Contact the ARDEX Technical Service Department for complete pump installation instructions.

### Thickness Of Application

ARDEX TL WOOD must be installed at a minimum thickness of 1/8" over the highest point in the floor, which typically results in an average thickness of 1/4" over the entire floor. ARDEX TL WOOD can be installed up to 2" over large areas in one pour, and up to 5" with the addition of proper aggregate. ARDEX TL WOOD can also be installed to a featheredge to match existing elevations.

For areas thicker than 2", mix ARDEX TL WOOD with washed and well-graded 1/8"-1/4" pea gravel. Mix ARDEX TL WOOD with water first, and then add 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 make it necessary to install a finish coat to obtain a smooth surface. Allow the initial application to dry for 12-16 hours. Prime this layer with ARDEX P 51 mixed 1:1 with water as stated above. Allow the primer to dry (min. 3 hours, max. 24 hours) before installing the finish coat.

### Wear Surface

ARDEX TL WOOD is not to be used as a permanent wear surface, even if coated or sealed. ARDEX TL WOOD must be covered by

a suitable floor covering material, such as ceramic tile, carpet, vinyl flooring, etc.

### Installation of Flooring

Floor covering material can be installed after the underlayment has dried thoroughly. Drying time will be a function of jobsite temperature and humidity conditions, as well as the installation thickness. While a 1/4" thick installation may be dry enough for some types of floor covering after only a few days, additional drying time may be necessary for deeper installations, or for the installation of more moisture-sensitive flooring. Provide continuous ventilation and adequate electrical or natural gas heat to remove moisture from the ARDEX TL WOOD.

After allowing a minimum of 48 hours of drying time after placement, test the dryness of the ARDEX TL WOOD by placing a piece of heavy plastic or a smooth rubber mat down over a 2' x 2' area. After 24 hours, lift the barrier material and inspect for surface darkening. A darkened area indicates excessive moisture is still present, and further drying time is required. Repeat the above test at regular intervals until no darkening is observed. Once the installation has been deemed dry, prime the entire area with ARDEX P 51 mixed with 3 parts by volume of water as stated above. Allow drying to a clear, thin film (min. 3 hours, max. 24 hours) before applying the adhesive and the floor covering. The application of ARDEX P 51 will help ensure that the adhesive will have sufficient open time prior to placing the floor covering.

### 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.

Always install an adequate number of properly located test areas, including 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 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 TL WOOD before primer has dried thoroughly. Do not install ARDEX TL WOOD below 50°F (10°C) surface and air temperature.

### Precautions

ARDEX TL WOOD contains Portland cement, gypsum, 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

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(All data based on a mixing ratio of 4 parts powder to 1 part by volume of water at 70°F (21°C).)

<b>Mixing Ratio:</b>	4 quarts of water per one 50 lb. bag
<b>Coverage:</b>	22 sq. ft. per bag at 1/4" 11 sq. ft. per bag at 1/2"
<b>Flow Time:</b>	10 minutes at 70°F (21°C)
<b>Initial Set</b>	
<b>(ASTM C191):</b>	Approx. 30 minutes at 70°F (21°C)
<b>Final Set</b>	
<b>(ASTM C191):</b>	Approx. 90 minutes at 70°F (21°C)
<b>Compressive Strength (ASTM C109/mod – Air cure only):</b>	4000 psi at 28 days
<b>Flexural Strength (ASTM C348):</b>	1500 psi at 28 days
<b>Flammability (ASTM E84):</b>	Flame Spread -0- Fuel Contribution -0- Smoke Development -0-
<b>Walkable:</b>	2-3 hours at 70°F (21°C)
<b>Install Floor Covering:</b>	24 hours at 70°F/50% RH
<b>Packaging:</b>	50 lb./22.7 kg net weight in paper bags
<b>Storage:</b>	Store in a cool dry area. Do not expose bags to sun.
<b>Shelf Life:</b>	One year
<b>Warranty:</b>	Ardex Engineered Cements Standard Limited Warranty

## 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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