ARDEX HC 100™
High-Capacity Self-Leveling Underlayment

Designed for the ARDEX ARDIFLO™ high- and medium-capacity pumping systems
Use to level and smooth interior concrete, terrazzo, ceramic and quarry tile, epoxy coating systems and non-water-soluble adhesive residue on concrete
Ideal for rough-screeded concrete surfaces
A blend of Portland cement and other hydraulic cements
Installs up to 1 1/4” neat
Can be tapered to meet existing elevations
Install moisture-insensitive tile and stone after 6 hours, most other floor coverings after 1 - 3 days
Interior use only

TESTED IN ACCORDANCE WITH ASTM C 1708
**Concrete Treated with Curing Compounds**

Dissipating compounds must also be removed completely by mechanical means prior to installing any ARDEX material. It is imperative to be able to determine the type of curing compound that was used before proceeding. Any curing compound that cannot be identified should be completely, mechanically removed.

**Adhesive Residues on Concrete**

ARDEX HC 100 can be installed over non-water-soluble adhesive residue on concrete only. The adhesive must first be tested to make certain it is not water-soluble. Water-soluble adhesives must be removed mechanically down to clean concrete.

Non-water-soluble adhesives must be prepared to a thin, well-bonded residue using the wet-scraping technique as recommended by the Resilient Floor Covering Institute (www.rfci.com) to remove thick areas and adhesive buildup. If the adhesive is not well-bonded to the concrete or is brittle, powdery or otherwise weak, it must be completely, mechanically removed down to clean, sound, solid concrete. Any existing patching materials below the adhesive must also be removed completely.

**Other Non-Porous Substrates**

ARDEX HC 100 can also be applied over clean, sound and solidly bonded non-porous substrates, including terrazzo, burnished concrete, epoxy coating systems and ceramic and quarry tile. The substrate must be clean, including the complete removal of existing sealers, dust, dirt, debris and any other contaminant that may act as a bond breaker. Where necessary, substrate preparation must be by mechanical means, such as shot blasting.

**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.

**Recommended Tools**

ARDEX T-4 Spreader, ARDEX T-5 Smoother, an appropriate ARDEX ARDIFLO™ Pumping System and cleated athletic shoes with non-metallic spikes.

**Joints and Cracks**

Under no circumstances should ARDEX HC 100 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 FEATHER FINISH® or ARDEX ARDIFIX™, following the instructions in each product's technical data sheet. Please note that if ARDEX ARDIFIX is used, it must be sand-broadcasted to refusal.
However, please be advised that while dormant control joints and dormant cracks in the slab may be filled with ARDEX FEATHER FINISH or ARDEX ARDIFIX prior to installing ARDEX HC 100, this filling is not intended to act as a repair method that will eliminate the possibility of joints and cracks telegraphing. ARDEX FEATHER FINISH, ARDEX ARDIFIX and ARDEX HC 100 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.

Moisture Control
ARDEX HC 100 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 floor covering. This product is not a vapor barrier and will allow free passage of moisture.

Follow the directives of the adhesive and floor covering manufacturer regarding the maximum allowable substrate moisture content, and test the substrate using the relative humidity test method in accordance with ASTM F2170 prior to installing ARDEX HC 100. If the test results are greater than the flooring or adhesive manufacturer’s recommendation, an appropriate ARDEX MC™ Moisture Control System must be installed in accordance with the respective technical data sheet.

Priming

**Primer Dry Times:** ARDEX primers may need longer drying times with low surface temperatures and/or high ambient humidity. Do not install ARDEX HC 100 before the primer has dried thoroughly.

**Test for Absorbency**
Substrate absorbency must be verified for proper primer selection. Test several areas by placing a small drop of water on the surface of the substrate. Darkening of the substrate indicates that the substrate is absorbent (porous). If there is no darkening of the substrate after 20 minutes, the substrate is likely non-absorbent (non-porous). Note that cementitious terrazzo and concrete treated with certain curing compounds can remain non-absorbent, even after shot blasting.

### Primer Selection

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Primer / Priming Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard absorbent concrete</td>
<td>ARDEX P 51 standard (1:1)</td>
</tr>
<tr>
<td>Standard absorbent cementitious terrazzo</td>
<td></td>
</tr>
<tr>
<td>Porous, acrylic curing compounds</td>
<td>ARDEX P 51 double priming method</td>
</tr>
<tr>
<td>Extremely absorbent concrete</td>
<td>ARDEX P 51 double priming method</td>
</tr>
<tr>
<td>Extremely absorbent terrazzo</td>
<td>ARDEX P 51 double priming method</td>
</tr>
<tr>
<td>Non-absorbent concrete</td>
<td>ARDEX P 82</td>
</tr>
<tr>
<td>Non-absorbent terrazzo</td>
<td></td>
</tr>
<tr>
<td>Non-water-soluble adhesive residue on concrete</td>
<td></td>
</tr>
<tr>
<td>Epoxy coating systems</td>
<td></td>
</tr>
<tr>
<td>Ceramic and quarry tiles</td>
<td></td>
</tr>
<tr>
<td>Non-porous, acrylic curing compounds</td>
<td></td>
</tr>
</tbody>
</table>

**ARDEX P 51 Standard (1:1)**
Mix ARDEX P 51™ Primer with water at a 1:1 ratio by volume. Apply evenly with a soft bristled push broom. 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. 30 minutes, max. 24 hours).

It is critical to ensure that the ARDEX P 51 is dry prior proceeding with the next installation step. To determine if the ARDEX P 51 is dry after a minimum of 30 minutes (max. 24 hours), pour water onto the surface of the primer in several areas and rub it with your finger. If the water remains clear, the primer is dry. If the water turns cloudy or milky, additional drying time is needed.

**ARDEX P 51 Double Priming Method**
Extremely absorbent concrete may require two applications of ARDEX P 51 to avoid the formation of bubbles and pinholes in the ARDEX HC 100. In such cases, make an initial application of one part ARDEX P 51 diluted with three parts water. Let dry thoroughly (1 - 3 hours) and install a second application of ARDEX P 51 mixed 1:1 with water as stated above.

**ARDEX P 82**
Non-porous surfaces must be primed with ARDEX P 82™ Ultra Prime. Follow the mixing instructions in the ARDEX
P 82 technical data sheet, and use within 1 hour of mixing. Apply with a short-nap or sponge paint roller, leaving a thin coat of primer. Do not leave any bare spots. Back roll with a dry roller to remove excess primer. Allow primer to dry to a thin, slightly tacky film (min. 3 hours, max 24 hours).

Mixing
ARDEX HC 100 can be pumped using the ARDIFLO™ Automatic Mixing Pumps. ARDIFLO Pumps provide high productivity and smooth, consistent installations. Pumps may be rented from an authorized ARDEX Distributor. Contact the ARDEX Technical Service Department for complete pump operation instructions.

Work Practice Control Methods
Contact the ARDEX Technical Service Department for more details on ARDEX products and OSHA Engineering and Work Practice Control Methods.

Application
ARDEX HC 100 has a flow time of 10 minutes at 70°F (21°C). Pump the mix onto the floor, and spread with the ARDEX T-4 Spreader. Immediately smooth the material with the ARDEX T-5 Smoother. Work in a continuous manner during the entire self-leveling installation. Wear cleated athletic shoes with non-metallic spikes to avoid leaving marks in the liquid ARDEX HC 100.

Thickness of Installation
ARDEX HC 100 must be installed at a minimum thickness of 1/8” (3 mm) over the highest point in the floor, which typically results in an average thickness of 1/4” (6 mm) or more over the entire floor. ARDEX HC 100 can be installed up to a 1 1/4” (3 cm) thick.

To match existing elevations, ARDEX HC 100 can be tapered to as thin an application as the sand in the material will allow. If a true featheredge is needed, ARDEX recommends using ARDEX FEATHER FINISH for transitions.

Wear Surface
ARDEX HC 100 is not to be used as a permanent wear surface, even if coated or sealed. ARDEX HC 100 must be covered by a suitable flooring material.

Installation of Flooring
ARDEX HC 100 is walkable in 4 - 5 hours. The cure time required prior to installing floor coverings will vary with the thickness of the ARDEX HC 100 installation and the type of flooring being installed. See the chart below for details.

Where mat testing is required, allow the installation to dry a minimum of 24 hours prior to mat testing in accordance with ASTM D4263. To do this, place a piece of heavy plastic or a smooth rubber mat 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 (typically 1 - 3 days).

All dry times are calculated at 70°F (21°C). Drying time is a function of jobsite temperature and humidity. Low substrate temperatures and/or high ambient humidity will extend the drying time. Adequate ventilation and heat will aid drying. Forced drying can dry the surface of the underlayment prematurely and is not recommended.

Notes
FOR PROFESSIONAL USE ONLY. Improper use voids warranty.
Always install an adequate number of properly located test areas, including the floor covering, to determine the suitability of the products for the intended use. As floor coverings vary, always contact and rely upon the floor covering manufacturer for specific directives, including maximum allowable moisture content, adhesive selection and intended end use of the product.
For installations over electrical, in-floor heating systems, please contact the ARDEX Technical Service Department.
Never mix with cement or additives. Observe the basic rules of concrete work. Do not install below 50°F (10°C) surface and air temperatures. Install quickly if the substrate is warm, and follow warm weather instructions available from the ARDEX Technical Service Department.
Dispose of packaging and residue in accordance with federal, state and local waste disposal regulations. Do not flush material down drains.

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.ardexardexamericas.com.
Technical Data According to ARDEX Quality Standards

Physical properties are typical values and not specifications. All data based on a partial, in-lab mix. Mixing and testing completed at 70°F / 21°C and, where applicable, in accordance with ASTM C1708.

<table>
<thead>
<tr>
<th>Coverage: 1,102 sq. ft. per supersack at 1/4&quot; (102.3 sq. m at 6 mm)</th>
<th>Coverage will vary depending on the texture of the surface being smoothed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Time:</td>
<td>10 minutes</td>
</tr>
<tr>
<td>Thickness of installation: 1/4&quot; (6 mm) minimum (average; can be tapered) 1 1/4&quot; (3 cm) maximum</td>
<td></td>
</tr>
</tbody>
</table>

Compressive Strength (ASTM C109/mod – Air cure only): 4,400 psi (308 kg/cm²) at 28 days

Flexural Strength (ASTM C348): 1,000 psi (70 kg/cm²) at 28 days

Walkable: 4-5 hours

Install Flooring: See Installation of Flooring section above.

VOC: 0

Packaging: 2,204 lb. supersack

Storage: Store in a cool, dry area. Do not leave bags exposed to sun.

Shelf life: 1 year, if unopened

Warranty: ARDEX Americas Standard Limited Warranty applies. Also eligible for the ARDEX SystemOne™ Warranty when used in conjunction with HENRY® Flooring Adhesives.

Made in the USA

© 2018 ARDEX, L.P. All rights reserved.

Revised 9/17/18. Published 11-05-2018. Supersedes all previous versions. Check www.ardexamericas.com for most recent version and for technical updates, which may supersede the information herein.