ARDEX CP™
Concrete Patch

Portland cement-based concrete patch and fill

Repair, re-slope and re-form all concrete surfaces

Easy to apply and hardens quickly

Installs from 1/4" to 1/2" (6 to 12 mm) neat, and up to 2" (5 cm) with aggregate

Freeze-thaw resistant

Suitable for foot and rubber tire traffic

Suitable for commercial and residential applications

Use for interior and exterior floors and walls

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 CP™
Concrete Patch

Description and Usage

ARDEX CP™ is a trowel-grade, cementitious topping for filling and repairing areas of indoor and outdoor concrete above, on or below grade. Engineered with Portland cement and select high-performance polymers, ARDEX CP readily bonds to concrete surfaces. It is easy to apply, hardens quickly, is freeze-thaw resistant, and produces a surface finish that is suitable for foot and rubber tire traffic. When mixed with water, the result is a creamy, smooth consistency that can be applied by trowel or screed.

Use ARDEX CP to fill spalls, gouges, dormant cracks, "birdbaths" and other low areas in existing concrete surfaces, including sidewalks, patios, plazas, courtyards, walkways, driveways, parking garages, pool decks and vertical concrete surfaces. ARDEX CP can also be used to re-form concrete steps and curbs, to create ramps over existing concrete, or to resurface vertical concrete substrates. Once applied and allowed to dry properly, ARDEX CD™, ARDEX CD FINE™ CONCRETE DRESSING or ARDEX CG™ CONCRETE GUARD™ can be installed over the patched area, as well as over adjacent concrete, to create a uniform appearance. ARDEX CP is recommended for residential and commercial applications.

Substrate Preparation

The repair area must be saw cut in a basic rectangular shape to at least ¼" (6 mm) in depth. The cuts should be made at approximately a 90° angle, and should be slightly keyed. Chip out the concrete inside the cuts to a minimum depth of ¼" (6 mm) until the area is squared or boxed in shape.

All concrete surfaces must be structurally sound, solid and free of any contaminant that might act as a bond breaker, including the removal of form release, existing sealers and paints, patching compounds, weak or loose areas, dust, dirt and oils. Over watered, frozen or otherwise weak concrete surfaces must also be cleaned down to sound, solid concrete. Use mechanical methods such as scarifying, scabbling or similar to create an exposed aggregate surface with a minimum surface profile of approximately 1/16" (1.6 mm) in accordance with ICRI 03732. Acid etching, solvents, sweeping compounds and sanding are not acceptable means of preparing the substrate.

Thoroughly broom-sweep and vacuum the area to be resurfaced to remove any fine dust or dirt. Clean debris out of expansion joints, and then tape or mask off the joints to prevent the ARDEX CP from filling them. Use a lawn edger to clean around walks or driveways, as well as around planter boxes and landscaped areas. Substrates must be dry for a successful installation. Substrate and ambient 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.

Cracks and Saw-Cut Joints

All moving cracks and joints, including expansion joints, isolation joints and construction joints, as well as all control joints (saw cuts), must be carried up through the ARDEX CP. Moving cracks can also be repaired using industry standard concrete repair techniques. Non-moving cracks greater than a hairline in width (3/32" or 2 mm) must be filled with a rigid, two-part epoxy crack and joint filler, which must be sand broadcast to refusal while the epoxy is still fresh. The epoxy must then be allowed to cure in strict accordance with the installation instructions provided by the epoxy manufacturer, and all excess sand must be removed prior to repairing the area with ARDEX CP. The filling of dormant cracks as described above is recommended to help prevent the cracks from showing through the repair. However, should movement occur, cracks will reappear.

Please also be advised that in no case should expansion joints, isolation joints, control joints (saw cuts) or moving cracks be filled with this epoxy. All moving joints and cracks must be honored up through the ARDEX CP by installing a flexible sealing compound specifically designed for use in moving joints, such as ARDEX ARDISEAL™ RAPID or similar.

Recommended Tools

Mixing buckets, margin trowel, wood or magnesium float, steel trowel, a mechanical mixing paddle and a ½" heavy-duty drill (12 mm, min. 650 rpm).

Mixing And Application

Mix each 40 lb (18 kg) bag of ARDEX CP with 5 quarts (4.75 L) of water. Pour clean water in the mixing container first, and then add the ARDEX CP. For best results, mix with a mechanical mixing paddle and drill. Mechanical mixing will produce a creamier, smoother consistency without the need for additional water. **DO NOT OVERWATER!** Additional water will weaken the compound and lower its strength. To mix smaller quantities by hand, use 2.75 parts powder to 1 part water by volume. Use a margin trowel and mix vigorously for 2 to 3 minutes. Mix thoroughly to obtain a lump-free consistency.

The pot life of ARDEX CP is approximately 30 minutes at 70°F (21°C). If the product begins to set in the bucket, remix before using. Do not add more water. In warm weather, use cold water to extend the working time. Cool

ambient and surface temperatures will slow the setting time. ARDEX CP is easily applied to any prepared concrete surface using standard concrete practices. Place a scratch coat of the compound onto an area of concrete using a steel trowel, applying enough pressure to ensure good compound-to-concrete contact. Then, using a wood or magnesium float, apply the ARDEX CP over the area to be repaired. If necessary, use a straightedge to screed the surface to match the existing elevation. After the compound takes an initial set (approx. 30 to 40 min. at 70°F/21°C), use a steel trowel to finish the ARDEX CP.

Thickness of Installation

ARDEX CP can be installed from ¼" to ½" (6 to 12 mm) neat, and up to 2" (5 cm) with the addition of proper aggregate. For areas thicker than ½" (12 mm), mix ARDEX CP with washed and well-graded ⅛" to ¼" (3 to 6 mm) pea gravel. Mix the ARDEX CP 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 over watering. Please note that thicker areas will take longer to set and will reduce the overall coverage.

Curing

Although ARDEX CP requires no special curing procedures, avoid applying this product if rain is expected within 6 to 8 hours, or if freezing temperatures could occur within 24 hours of application. As with any cementitious material, the above conditions can alter the appearance and performance of the patching compound. ARDEX CP can receive light foot traffic after approximately 2 hours.

Color

ARDEX CP is formulated from Portland cement and is a light gray color when dry. As concrete color and jobsite conditions vary widely, it is not intended that this product will match the color of the concrete being resurfaced or an adjacent concrete pad. Jobsite conditions such as direct sunlight and wind, as well as the surface of the dressing being exposed to moisture before it completely sets, can lead to minor color variations in the appearance of the patching compound.

If a more uniform aesthetic appearance is desired, ARDEX recommends that the repaired area and adjacent concrete either be skim coated with ARDEX CD or ARDEX CD FINE, or sealed with ARDEX CG Gray or pigmented tintable base. ARDEX CD or ARDEX CD FINE can be applied after the ARDEX CP has set for a minimum of 4 hours. Please refer to the ARDEX Technical Brochures for instructions.

Sealing

As is the case with any concrete surface, ARDEX CP should be sealed with a water-borne, breathable concrete sealer to prevent dusting and to help resist damage from standing water, salt, or oil, as well as staining and marking. ARDEX recommends the use of ARDEX CG to seal ARDEX CP, as well as other absorbent concrete and masonry surfaces. Sealing can proceed once the ARDEX CP has cured for a minimum of 24 hours (70°F/21°C). If ARDEX CD or ARDEX CD FINE is installed over ARDEX CP, the installation still requires a minimum of 24 hours before sealing. Avoid full traffic and vehicular traffic until the sealer has dried thoroughly. For further information, please refer to the ARDEX Technical Brochures.

Notes

The pot life of ARDEX CP is approximately 30 minutes at 70°F (21°C). Pot life will vary with ambient temperatures.

ARDEX CP is intended for resurfacing interior and exterior concrete subject to foot and rubber-wheeled traffic. Do not use in fountains, inside swimming pools or in any areas that will be permanently submerged in water.

ARDEX CP is recommended for residential and commercial use only. ARDEX CP is not intended for industrial uses such as heavy manufacturing or areas with heavy truck traffic.

Always install an adequate number of properly located test areas, including the sealer, to determine the suitability and aesthetic value of the products 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 intended end use of the product.

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 and air temperatures. Install quickly if substrate is warm, and follow warm weather instructions available from the ARDEX Technical Service Department.

Precautions

ARDEX CP contains Portland cement and sand. 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.

Technical Data According To ARDEX Quality Standards

All data based on a mixing ratio of 2.75 parts powder to 1 part water by volume at 70°F (21°C)

Mixing Ratio:	5 quarts (4.75 L) water bag For smaller batches, use 2.75 parts powder to 1 part water by volume
Material Requirements on Smooth Substrate (approx.):	22.5 sq. ft. per bag at ¼" (2.1 m^2 at 6 mm) Application methods and the texture of the concrete being coated will affect this rate.
Compressive Strength (ASTM C109/mod – Air cure only):	3600 psi (253 kg/cm^2) at 28 days
Working Time:	30 minutes
Pot Life:	30 minutes
Walkable:	Light foot traffic in 2 hours
Coat or Seal:	Apply ARDEX CD in 4 hours Apply ARDEX CG in 24 hours
VOC:	0 g/L, calculated, SCAQMD 1168
Packaging:	40 lb (18 kg) net weight bags
Storage:	Store in a cool dry area. Do not leave bags exposed to sun.
Shelf Life:	One year if unopened
Warranty:	ARDEX Engineered Cements Standard Limited Warranty applies.

AT134 (07/10)

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