

# SPEC-DATA®

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## 1. PRODUCT NAME

Ashford Formula®

## 2. MANUFACTURER

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## 3. PRODUCT DESCRIPTION

Ashford Formula, the leader in concrete densification since 1949, is a transparent, chemically reactive, water-based sealer that penetrates concrete and masonry building materials, protecting, preserving and strengthening them permanently by:

- **Curing**-Ashford Formula controls hairline checking and temperature cracking on new concrete. When applied to properly placed, structurally sound freshly finished concrete, Ashford Formula will uniformly cure the concrete through a combined chemical/moisture retention reaction so vital to the complete hydration process.
- **Sealing**-Ashford Formula penetrates deep into the concrete forming a chemical reaction that locks the pores from within, providing a deep permanent seal on all types of concrete surfaces.
- **Hardening**-Ashford Formula solidifies the component parts of the concrete into one solid mass, increasing the density, toughness and hardness and substantially increasing the abrasion resistance and durability of the concrete surface. Smooth steel troweled surfaces develop a marble like finish and sheen. Ashford Formula treated concrete has been compressively tested 38% harder after 30 days than fully cured, untreated concrete.
- **Dustproofing**-Ashford Formula chemically reacts with the salts in the concrete,

permanently eliminating the release of concrete dust through the surface pores.

- **Neutralizing Alkali**-As the Ashford Formula progressively penetrates the concrete, it neutralizes the alkali forcing them to the surface where they can be washed away during the application. The deep alkali are locked in and efflorescence and the leaching of lime and alkali stop.
- **Bonding**-Ashford Formula prepares the treated surface for paints, caulking compounds, adhesives and floor coverings by eliminating the surface concrete salts that are so detrimental to proper bonding. Ashford Formula contains no silicone and is coatable and compatible with any type of covering when standard surface preparation guidelines are followed.

**Treatment Results:** With one application of Ashford Formula, concrete or other masonry is cured and permanently sealed for its lifetime, and rendered highly resistant to oils, greases, and other surface contaminants. The component parts of the concrete are solidified into a solid mass, which toughens, hardens and increases the density. The surface alkali are neutralized and efflorescence and the leaching of lime and alkali are stopped.

**Treatable Materials:** Concrete, heavy weight concrete block, mortar, plaster, stucco, terrazzo, exposed aggregate, and any sand, aggregate, cement combination.

**Limitations:** Do not apply Ashford Formula in the following cases:

- To seal light weight block or other extremely porous masonry that contains actual holes and air pockets.
- When the temperature falls to below 35°F (1.7°C).
- To areas previously treated with curing or sealing agents, unless these coatings have been removed by chemical or mechanical means.

Note: Apply Ashford Formula to colored concrete only after the slab is fully cured. Do not get on glass or other finished surfaces. If so, flush immediately.

## 4. TECHNICAL DATA

### Applicable Standards:

- Abrasion: ASTM C 779 - 32.7% increase in abrasion resistance.
- Bonding: ASTM D 3359 - 17% increase in epoxy adhesion. No change for polyurethane adhesion.
- Curing : 94% greater moisture retention during the initial critical 24 hour curing period as compared to untreated samples.
- Hardening: ASTM C 39 - 40% increase in compressive strength at 7 days; 38% increase at 28 days over untreated samples. ASTM C 805 Schmidt hammer-13.3% increase in impact resistance.
- Permeability: The Seepage rate using a 7 foot (211 cm) head of water and a 4.91 square inch (31.2c<sup>2</sup>) area treated with Ashford Formula, was 0.022cc per hour.
- Weathering:ASTMG23-81 -ultraviolet light and water spray exposure had no adverse effect and Ashford Formula treated samples.

**Packaging:**55 gallon (208L)drums and 5 gallon (19L) Containers.

**Coverage:** Approximately 200 square feet per gallon (5m<sup>2</sup>/L). Coverage depends on the temperature and porosity of the concrete.

**Storage Life:** Indefinite. Agitate bucket or drum before using.

**Thinners:** None required. Clean all equipment with water only.

**Number of Applications Required:** One.

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**Duration of Effectiveness:** Permanent. The concrete becomes harder and better sealed the older it becomes.

**Time Requirement for Curing, Sealing and Hardening:** 60-90 days. Unlike surface coatings that wear away with use, Ashford Formula seals the concrete from within by permanently locking the pores, thus making the concrete itself the penetration barrier. This process is essentially complete within 90 days, but may continue at a much slower rate for up to one year.

**Color:** Clear. Ashford Formula will not change the natural appearance of the masonry or concrete. Where alkali, lime and other impurities are forced to the surface and the natural appearance is to be preserved, all treated surfaces must be flushed clean with clear water according to the manufacturer's instructions.

**Sheen:** Permanent. On smooth steel troweled concrete surfaces a natural wax-like sheen will appear between 6 and 12 months after treatment. This sheen is caused by the hardening and sealing effects of the Ashford Formula as well as abrasion from cleaning and use of the floor. As a permanent part of the concrete surface, the sheen will last the lifetime of the surface.

**Application Temperature Limits:** 135°F, 35°F (57°C, 1.7°C). At low temperatures completely protect new concrete from freezing for a period of six days.

**Drying Time:** 1-3 hours. The surface can be used as soon as the application is complete and the surface is again dry to the touch. Newly placed concrete requires the normal hardening period.

**Painting or Covering Preparation:** Old Concrete-Allow 3-7 days before applying paint or coverings. New Concrete-Allow 30 days for proper curing.

**Internal Makeup:** Non-toxic, noncombustible, non-flammable. Not harmful to lungs or hands. Complies with all V.O.C. and U.S.D.A. regulations.

## 5. INSTALLATION

**Methods of Application:** Spray or pour and broom to saturate the surface.

**Tools Needed:** Low pressure sprayer, soft bristle broom, squeegee, water hose.

**Surface Preparation:** Sweep all areas to be treated with a fine bristle broom or scrub, hose off with water and let dry, to remove surface dust, dirt and contamination. Ashford Formula can be applied to damp surfaces as long as all puddled areas are swept away so that the Ashford Formula is not diluted before it is able to penetrate the surface.

### For new concrete:

- Step 1-Applly Ashford Formula immediately following the finishing operation as soon as the surface is firm enough to walk on before hairline checking and temperature cracking begin. Keep the entire surface wet with Ashford Formula for 30 minutes.
- Step 2-As the Ashford Formula becomes slippery underfoot, lightly mist the surface with water.
- Step 3-As the Ashford Formula again becomes slippery underfoot, thoroughly flush the entire surface with water and squeegee the surface completely dry to remove all surface alkali or Ashford Formula residue.

On exterior broom finished surfaces, no flushing is required, but any remaining Ashford Formula must be squeegeed or broomed from the surface after 30-40 minutes.

### For old concrete (all cured surfaces):

- Step 1-Saturate the surface with Ashford Formula so that the entire surface is wet with Ashford Formula for 30 minutes.
- Step 2-Option 1. If after 30-40 minutes the majority of the Ashford Formula has been absorbed into the surface, broom or squeegee any excess material from all low spots and puddles so that all remaining Ashford Formula is entirely absorbed into the concrete or totally removed from the surface.
- Step 2-Option 2. If after 30-40 minutes the majority of the Ashford formula is still on the surface, wait until it becomes slippery underfoot, then thoroughly flush the entire surface with clear water and squeegee completely dry to remove all Ashford Formula residue.

## 6. AVAILABILITY AND COST

Ashford Formula®, manufactured exclusively by Curecrete Chemical Company, Inc., is distributed throughout the United States direct to the jobsite or through regional factory warehouses and is competitively priced. For specific price information contact Curecrete Chemical Company, Inc.

## 7. WARRANTY

Curecrete Chemical Company, Inc. warrants that a properly prepared and structurally sound concrete or masonry surface treated with Ashford Formula according to the manufacturer's directions will remain dustproof, hardened and water repellent.

If after the specified sealing period the treated surface does not remain dustproof, hardened and water repellent, Curecrete Chemical Company, Inc. will supply, at its own expense, sufficient Ashford Formula to reseal any defective area. This warranty does not apply if the Ashford Formula is improperly applied or if structural faults occur due to faulty workmanship, improper design or failure of materials other than the Ashford Formula.

## 8. MAINTENANCE

**Floors:** Wash or wet mop with a neutral or high pH detergent.

**Walls:** Flush with water.

## 9. TECHNICAL SERVICES

Technical information and assistance can be obtained from Curecrete Chemical Company, Inc. Technical Service, 801-489-5664.

## 10. FILING SYSTEMS

•CSI's SPEC-SEARCH™

•IHS' SPEC-DATA® II

--Additional product information available upon request.