THE ORIGINAL CONCRETE DENSIFICATION TECHNOLOGY

DENSIFY

ASHFORD FORMULA

> COMMERCE INDUSTRIES INDUSTRY, CA, USA by MARK BEAMISH WATERPROOFING 2020



## Think concrete's tough? We make it tougher.

Fi ; E

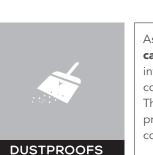
ASHFORDFORMULA.COM 801.489.5663 / 800.998.5664



# **BENEFITS**

Ashford Formula densifies concrete surfaces into a **solid mass** by penetrating the concrete and chemically filling the pores from within.

#### DENSIFIES



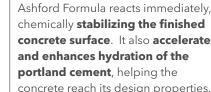
Ashford Formula **combines with** calcium hydroxide, becoming an integral part of the concrete, thus completely dustproofing the surface. This reduces maintenance costs and protects inventory and equipment from concrete dust.



Ashford Formula is a chemically reactive liquid that penetrates the concrete, solidifying the concrete surface components into a solid

mass. It produces a permanently denser, harder, penetration and abrasion-resistant concrete surface. Ashford Formula is inorganic, non-toxic, VOC free, colorless and odorless.

> Ashford Formula chemically hardens the concrete surface, increasing the abrasion resistance by 32%



CURES



Over time, Ashford Formula treated floors will develop a permanent and attractive sheen. Rather than eroding with traffic, the floor surface actually begins to self polish.

Note: Open or porous surfaces, or floors with poor surface ntegrity may not achieve these results.



concrete surface. It also accelerates concrete reach its design properties.

Application of the Ashford Formula is a one-time, permanent application. This **eliminates** the need for expensive re-application materials, labor costs and facility downtime. Routine surface cleaning is all that is required for long-term maintenance.



There are so many choices and so many reasons, but the decision is simple. An Ashford Formula treated floor simply out-performs the competition in results and long-term cost savings, with an economical one-time investment. Properly densifying your floor means doing the job right the first time for results that last a lifetime.

#### SUBSTANTIAL **COST SAVINGS**

- Proven long-term performance at minimal cost
- ► Single, permanent application no need for expensive re-application materials, labor or costly facility downtime
- Quick application saves valuable construction time and cost
- Eliminates high maintenance costs only routine cleaning is required for optimum results

## REDUCED

- ▶ Use of existing concrete floors as the finished surface
- Permanent life cycle no need for replacement like floor coverings
- air quality
- Contributes to LEED points for sustainable building
- Packaged in re-conditioned blue drums



#### **DENSIFY** FOR STRONGER, TOUGHER CONCRETE FLOORS

For years, concrete floors were protected with films and coatings - merely temporary solutions which wear away and require re-application. Ashford Formula takes a different approach by penetrating the concrete surface, growing crystals in the concrete itself. This reaction fills the natural pores and voids in the concrete, densifying the surface internally.





#### NON-DENSIFIED CONCRETE

A simple scratch test with a metal object demonstrates the softness of non-densified concrete.

This non-densified concrete sample reveals the porous structure of concrete, which leads to wear and deterioration.



#### ASHFORD FORMULA DENSIFIED CONCRETE

Scratching a concrete surface densified with Ashford Formula reveals no erosion or dusting. Ashford Formula has strengthened the concrete surface from within.

Ashford Formula densifies by penetrating the concrete surface and filling the natural pores and voids with crystalline growth.

**66** I AM CONVINCED THAT THE ASHFORD FORMULA IS THE ONLY WAY TO GO, AND I DON'T HESITATE TO GIVE THE FORMULA AN UNQUALIFIED RECOMMENDATION.

J. Keith McCoy, Chief of Maintenance, Pennzoil Company

#### **ENVIRONMENTAL IMPACT**

Produces no fumes, vapors, offgassing; VOC free - improves indoor

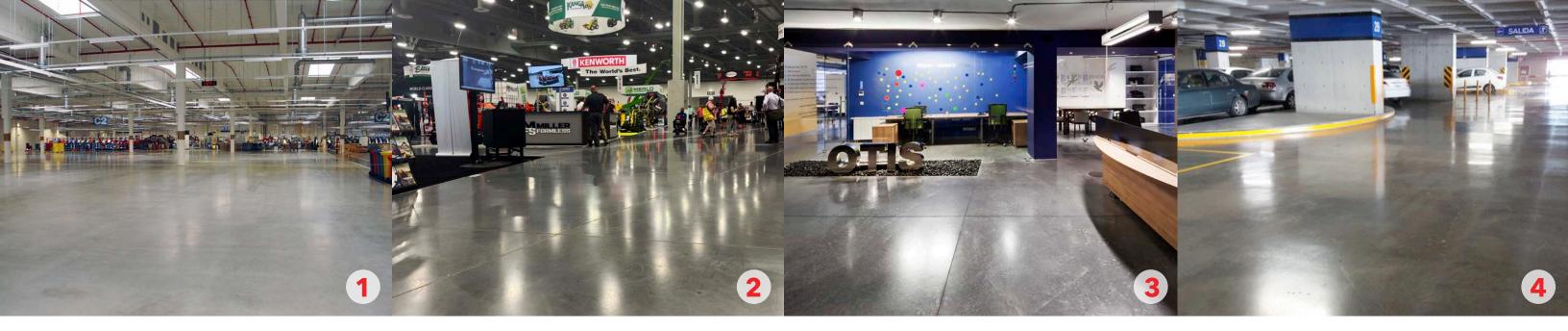
#### CERTIFICATIONS & RECOGNITIONS

- ► TÜV SŰD TM 14 Tested and Certified
- Zero (0) VOCs
- ► CE Declaration of Conformity
- ► REACH Certified
- NFSI Certified "High-Traction"
- Approved for use in food handling facilities





**PENNZOIL EXECUTIVE HANGAR** HOUSTON, TX, USA



#### **REAL PROJECT** HIGHLIGHTS **V**

**LEGO** by eMZet SRO - CZECH REPUBLIC

**4** Parking Garage by Ashford Formula de Mexico - MEXICO

**China Tobacco Distribution Center** by Wuxi Hua Can Chemical - CHINA

2 Las Vegas Convention Center - West Hall by Midwest Pro Painting - USA

5 Costco by Gia Phu Dinh Construction - VIETNAM

**B** Melbourne Market Relocation by Green Concrete Products - AUSTRALIA



**6** Uline Warehouse by Sanders & Wohrman - USA

#### **INDUSTRIES** SERVED **V**

- > Correctional Facilities
- > Data Centers
- > Distribution Centers
- > Manufacturing Plants > Outdoor Concrete

> Exhibit Halls



# REAL PROJECTS



ONLINE PHOTOBOOK More amazing project hotos at your fingertips!

## A SOLID FOUNDATION, FROM THE GROUND UP

Your business productivity requires a solid, **DENSIFIED** concrete floor.

Your concrete floor is more than a building foundation. It is also worldwide corporations have chosen the performance of the the foundation of your business productivity. For lifelong floor Ashford Formula. performance, long-term cost effectiveness and sustainability, worldwide corporations like Caterpillar, CocaCola, DHL, Procter With the longest proven track record of performance in the & Gamble, IKEA and Whirlpool have chosen Ashford Formula as industry, over 70 years, Ashford Formula is the trusted product for their concrete densifier of choice. permanent, superior concrete floor results.

> Parking Decks / Garages

> Warehouses

- > Retail Stores
- > Stadiums / Sports Arenas

Note: This is not a comprehensive list. Ashford Formula and Curecrete's line of supporting products can be used on most any concrete floor serving a multitude of industries and functions.

re-treatment. It provides exceptional performance for the entire life of your floor. Never halt your business productivity or pay for costly repeated applications down the road. It's why notable

#### **PRODUCT INFO**

## TECHNICAL DATA

**EQUIPMENT CLEAN-UP** 

Formula dries.

PAINTING

NOTES

beneath the slab.

Specifications for specific details.

Use soap and water before the Ashford

Allow at least seven (7) drying days before

Allow twenty-eight (28) days for proper curing

Apply to colored concrete only after the slab is fully cured,

Do not allow to dry on finished surfaces (glass, aluminum,

stainless steel, walls, etc.) as permanent etching may occur.

Any spills on these surfaces should be removed while the

The Ashford Formula may not prevent deterioration of floor

slabs on which salts from ice melt are allowed to accumulate,

cycles. Regular and frequent cleaning of all slabs exposed to

especially when the floor is exposed to frequent wet/dry

Although the Ashford Formula provides a dense concrete

moisture vapor from beneath a floor slab. In conditions of

Formula, especially when no vapor barrier has been installed

high vapor drive, salts and other inorganics may still be deposited on concrete floor surfaces treated with the Ashford

Ashford Formula is a highly effective compound which

delivers superior results. Application should be performed

oplication and uses. \*See Spec Data Sheet or Application

by qualified contractors with a clear understanding of its

road salts is critical to preventing salt-related damage.

surface, it cannot in all cases prevent the migration of

unless installed by a factory certified applicator.

applying paint on existing concrete.

before painting new concrete.

Ashford Formula is still in liquid form.



SURFACE PREPARATION

No preparation required.

• Existing Concrete (OLD):

**APPLICATION** 

automatic scrubber.

DRYING TIME

hardening period.

the initial sheen.

specific details.

• Freshly Finished Concrete (NEW):

any surface contaminants or film.

Only one permanent application is required.

until flood coat is achieved. Work material

into the surface with fine-bristled brooms,

or with an auto scrubber. Keep the entire

surface wet with Ashford Formula for 30

minutes. Then when the Ashford Formula

becomes slippery, flush completely with water

and squeegee dry or vacuum excess with an

\*See Spec Data Sheet or Application Specifications for

One (1) to three (3) hours. The surface may be used as soon as the application is

SURFACE APPEARANCE

On smooth troweled concrete, a sheen

develops within 6-12 months. All other

surfaces retain their natural appearance. The

sheen can be accelerated by burnishing the

floor. A spiff coat can also be used to enhance

complete and the surface is dry to the touch.

Newly placed concrete requires the normal

Apply with high-volume, low-pressure sprayer

Sweep, scrub or strip concrete to remove

#### DESCRIPTION

Clear, odorless, non-toxic, non-combustible, non-flammable. Contains no VOCs.

#### USES

Concrete, heavyweight concrete block, exposed aggregate and other sand/aggregate portland cement combinations.

New or old concrete, rough or smooth surfaces.

#### **FUNCTIONS**

Densifies, dustproofs, hardens and cures. Protects against dusting, pitting, spalling, efflorescence and surface crazing. Inhibits freeze/thaw deterioration

#### PACKAGING

- 55 gallon drums / 208 liters
- 5 gallon pails / 19 liters

#### STORAGE LIFE

Indefinite. Agitate before use.

#### COVERAGE

Approximately 200 ft²/gal (5 m²/L).

Coverage may depend on the temperature and porosity of the concrete.

#### **TEMPERATURE LIMITS**

Apply in temperatures up to 115°F (46°C) or as low as 35°F (1.7°C) and protect from freezing for a period of six (6) days.

#### **QUICK LINKS**



# v2.2









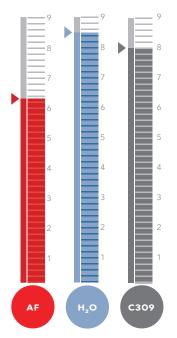




#### **INCREASED ABRASION RESISTANCE**

#### ASTM C 779 - Depth of Wear

Abrasion Resistance to Revolving Disks: An improvement of 32.5% over untreated samples after 30 minutes.



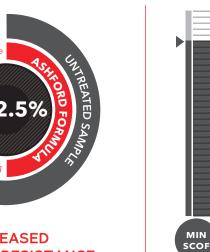
#### **ENHANCED CURING**

ASTM C 856 - Petrographic Examination (Density of the Paste)

The number of unhydrated cement grains remaining on the surface - depth of 150 - 250 µm. Fewer unhydrated cement grains mean better curing.

Impact Resistance by Schmidt Hammer: An increase of 13.3% over untreated samples.

controlled environments. Curecrete Distribution, Inc. makes no claim that these tests, or any other tests, accurately represent actual design and/or usage environments.

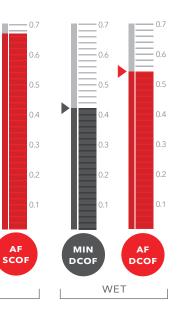








## PERFORMANCE CRITERIA



#### HIGHER FRICTION

WET

#### ANSI / NFSI B101.1-2009 & ANSI / NFSI B101.3-2012

Static Coefficient of Friction (SCOF) and Dynamic Coefficient of Friction (DCOF) minimum standards vs. Ashford Formula: SCOF - 0.60 vs. 0.67 // DCOF - 0.42 vs. 0.54





#### GREATER IMPACT RESISTANCE

#### ASTM C 805 - Rebound Number

#### BONDING

#### ASTM D 3359 - Surface Adhesion

Adhesion of Coatings: For epoxy, a 22% increase in adhesion over untreated samples. No change in adhesion for polyurethane.

#### PERMEABILITY

#### Seepage Rate

Using a 7 ft. (2.13 m) head of water on a 4.91 in<sup>2</sup> (124.71 mm<sup>2</sup>) area treated with Ashford Formula only allowed a rate of 0.00073 oz (0.022 cc) / hour. After several days the sample became damp, but no observable local seepage.

#### WEATHERING

#### ASTM G 23 - Light Exposure Degradation

Exposure to ultraviolet light and water: No evidence of adverse effects on the samples treated with Ashford Formula.

#### VOC EMISSION TEST COMPLIANCE

California Dept of Public Health CDPH / EHLB / Standard Method Version 1.2, 2017

Indoor air quality compliant. Certificate and test results available upon request.

#### ELECTRICAL RESISTANCE OF DISSIPATIVE RESILIENT **FLOORING**

ASTM F150 - Standard Test Method for Electrical Resistance of **Conductive & Static Dissipative Resilient Flooring** 

Considered static dissipative. Certificate and test results available upon request.

# MAINTENANCE

## PROPER MAINTENANCE **OPTIMAL PERFORMANCE**

#### ...for a lifetime.

#### **MAINTENANCE PROGRAM**

An effective maintenance program that includes routine scrubbing with stiff bristle brushes, ample down pressure, and proper amounts of water and cleaner will enhance the floor's performance significantly. Implementation of the following maintenance program will allow the Ashford Formula to continue to react with the concrete, lifting contaminants away from the concrete and allowing the marble-like sheen to develop.

Scrub Floor OFTEN: Minimum routine cleaning 2 - 3 times per week with CreteClean Plus with Scar Guard provides superior results.

Clean Spills **QUICKLY**: After densification is complete, concrete will resist contamination and moisture penetration of most liquids. Corrosive or aggressively staining contaminants should be removed quickly to avoid possible staining.

#### RECOMMENDED SUPPLIES

> Automatic Scrubber

Capable of 125 - 150 lbs. of downward pressure.

- > Medium-Aggressive Nylon Brushes Accelerates the sheen and creates a more uniform appearance.
- > Cleaner\*: CreteClean Plus with Scar Guard<sup>™</sup> Performance enhancing cleaner specifically designed to clean densified and densified-polished concrete floors. Regular use helps decrease the visibility of minor scratches and blemishes and helps maintain the concrete sheen
- > Large Volumes of Water

Water used while cleaning the concrete surface will actually accelerate the reaction between Ashford Formula and the concrete.

- > Oil Emulsifier & Acrylic Stripper: CreteStrip<sup>™</sup> Use directly on stain for spot treatment.
- > Polypropylene or Stiff-Poly Brushes Regular maintenance after sheen develops.

\*If other cleaners are used they should be non-acidic and void of hydroxides and sulfates.

#### **RECOMMENDED PRODUCTS**

#### **CLEANER:**





- 1 gal. (3.79 L) jugs
- 5 gal. (19 L) pails
- 55 gal. (208 L) drums
- Single dose packaging for auto scrubbers and mop and bucket
- cleaning





- 5 gal. (19 L) pails
- 55 gal. (208 L) drums

## **SALT PROTECTION:**



- 5 gal. (19 L) pails
- 55 gal. (208 L) drums





### LIFELONG, OPTIMAL PERFORMANCE

Cleaning your Ashford Formula floor is convenient, economical and will result in a floor that has a marble-like sheen that improves with age. With Ashford Formula, there is no surface film or coating present to peel, blister or require expensive replacement and repeated applications. The floor's performance, as well as the satin sheen that develops over time, is enhanced by proper cleaning and maintenance. Following a proper maintenance program as outlined here will ensure optimal floor performance for a lifetime.

#### EXPECTATIONS FROM A PROPERLY MAINTAINED FLOOR

#### **IMMEDIATELY AFTER TREATMENT**

- concrete will retain its natural concrete appearance).
- nails, etc. after the initial placement.
- done to enhance the initial sheen.

#### **3-6 MONTHS AFTER TREATMENT**

- ▶ If the standard maintenance program is followed, smooth-troweled floor surfaces will develop a sheen. Note: A sheen will not develop on floors with an open, porous finish, or on floors with a broom finish.
- On steel-troweled floors, water typically begins to bead on the surface.

#### **12 MONTHS AFTER TREATMENT**

- A hard shell-finished surface will develop.
- Surface is resistant to oil penetration and moisture contamination.

#### The use of truck soap had caused this floor to have a dull appearance. After a proper maintenance program was

implemented, the natural sheen from the Ashford Formula was once again visible.

#### NORTH POINT TOYOTA LITTLE ROCK, AR, USA by ROBERTS-MCNUTT, INC. 2007

#### The TRUTH is... How you treat your floor now, determines

how your floor will treat you down the road.

▶ The hardening and dustproofing will take effect within the normal curing period on new concrete and within 24-48 hours on existing concrete. The floor will have a normal concrete appearance or a slight sheen (broom-finished or rough-textured

▶ The density and hardness of the floor will be immediately enhanced. However, care should be taken not to gouge the floor with

▶ To accelerate the sheen, the floor can be burnished with a high speed propane burnisher and a black stripping pad at 1800 to 3000 RPMs, or cleaned daily using an auto-scrubber equipped with medium-aggressive nylon brushes. A spiff coat can also be

## ONE COMPLETE SYSTEM



See how our "One Complete System" of concrete floor products works together to enhance the performance of your concrete floors.

ONE COMPLETE SYSTEM FOR ALL YOUR DENSIFIED AND DENSIFIED-POLISHED CONCRETE FLOORING NEEDS



#### **ONE EXPERT SOURCE**



#### QUALITY

A quality floor, paired with quality products, equals superior flooring results. Let our products take your floor to the next level.

#### PERFORMANCE

From start to "finish," our One Complete System of concrete floor products outperforms the competition and will enhance your concrete floors' performance durability, longevity and appearance.

#### VALUE

Your floors, done right, and done once, will save you time and money in the long term. Products that don't perform, and which require repeat applications, hamper your business' productivity and bottom line.

#### 70+ YEARS OF LIVING **PROOF THAT** ABSOLUTELY CAN'T **BE DISPUTED**

Whether old or new concrete, our products will enhance your floor's performance, ensuring its durability and longevity for a lifetime.

THE "ORIGINAL" CONCRETE DENSIFER Built in 1949, the Casa de Cadillac dealership in Sherman Oaks, CA, USA is one of the earliest documented floors treated with the Ashford Formula. This facility is on the California historical register. Still in use today, the concrete floor has provided more than six decades of continuous service and attests to the longevity and durability of the Ashford Formula.









## THE DIFFERENCE

"GREEN" BY DESIGN FROM THE VERY BEGINNING

The Ashford Formula and the concept of concrete densification was "green" well before going "green" ever became a movement. The permanent effects of this unique combination will save significant time, money and energy in the long term.

The Ashford Formula's green qualities make it an exceptional choice for today's sustainable and green building initiatives. It has been widely specified for use on projects that have garnered LEED Certified, LEED Silver, LEED Gold and LEED Platinum status.





2009

\*Qualifying conditions apply.

Product availability varies by market. Contact your local representative





#### SUSTAINABILITY BENEFITS

- 1 Energy Cost Savings
- 2 Reduce Life Cycle Impacts
- 3 No Off-Gassing
- 4 Improved Thermal Comfort
- **5** Increased Daylighting; Light Reflection

As if 70+ years isn't proof enough of the Ashford Formula's enduring performance, Curecrete Distribution, Inc. offers a standard **20-Year** Product Performance Warranty on Ashford Formula floors, as well as a Lifetime\* Product **Performance Warranty** - the longest warranty offered in the industry - when maintained with CreteClean Plus with Scar Guard<sup>™</sup>.

CURECRETE -SETTING THE STANDARD, RAISING THE BAR

[;<u>URE[;RETE</u>

Curecrete Distribution, Inc. has been providing leadership in the concrete densification industry for more than 70 years. Curecrete continues to lead with an unwaivering commitment to superior products, best practices and industry expertise.





## A SOLID FOUNDATION, FROM THE GROUND

Because your business productivity requires a solid, DENSIFIED concrete floor.