

THE ORIGINAL CONCRETE DENSIFICATION TECHNOLOGY



# ASHFORD FORMULA™

ZALANDO  
LODZ, POLAND  
by FIBRE SYSTEM Sp. z o.o.  
2012



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

ASHFORDFORMULA.COM

801.489.5663 / 800.998.5664



# BENEFITS

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.**



## DENSIFIES

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



## ABRASION RESISTANCE

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



## DUSTPROOFS

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.



## CURES

Ashford Formula reacts immediately, chemically **stabilizing the finished concrete surface**. It also **accelerates and enhances hydration of the portland cement**, helping the concrete reach its design properties.



## PERMANENT SHEEN

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 integrity may not achieve these results.*



## ELIMINATES HIGH MAINTENANCE COSTS

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.

## 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.

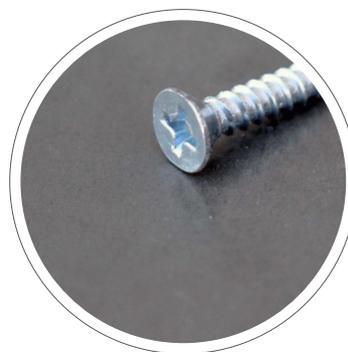


### NON-DENSIFIED CONCRETE

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.

PROLOGIS PARK  
SAITAMA, JAPAN  
by COSMO TRADE  
2015

## THE RIGHT DECISION NOW, AND FOR THE FUTURE

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 ENVIRONMENTAL IMPACT

- ▶ Use of existing concrete floors as the finished surface
- ▶ Permanent life cycle - no need for replacement like floor coverings
- ▶ Produces no fumes, vapors, off-gassing; VOC free - improves indoor air quality
- ▶ Contributes to LEED points for sustainable building
- ▶ Packaged in re-conditioned blue drums



### CERTIFICATIONS & RECOGNITIONS

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



“ 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*

PENNZOIL EXECUTIVE HANGAR  
HOUSTON, TX, USA  
1980



**REAL PROJECT HIGHLIGHTS** ▼

- 1 LEGO**  
*by eMZet SRO - CZECH REPUBLIC*

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

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

- 2 Bugatti**  
*by NORSA GmbH - GERMANY*

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- 5 Costco**  
*by Gia Phu Dinh Construction - VIETNAM*

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- 8 Melbourne Market Relocation**  
*by Green Concrete Products - Australia*

- 3 Otis Offices**  
*by ERA Ltd. - TURKEY*

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- 6 Post Cereal**  
*by Philip E. Bath, Inc. - USA*



# REAL PROJECTS



**ONLINE  
PHOTOBOOK**  
*More amazing project  
photos at your fingertips!*

**A SOLID FOUNDATION, FROM THE GROUND UP**

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



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4

## INDUSTRIES SERVED ▼

- > Correctional Facilities
- > Exhibit Halls
- > Parking Decks / Garages
- > Warehouses
- > Data Centers
- > Manufacturing Plants
- > Retail Stores
- > Distribution Centers
- > Outdoor Concrete
- > 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.*



7



8

Your concrete floor is more than a building foundation. It is also the foundation of your business productivity. For lifelong floor performance, long-term cost effectiveness and sustainability, worldwide corporations like Caterpillar, CocaCola, DHL, Procter & Gamble, IKEA and Whirlpool have chosen Ashford Formula as their concrete densifier of choice.

With its one-time application, the Ashford Formula never requires 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 worldwide corporations have chosen the performance of the Ashford Formula.

With the longest proven track record of performance in the industry, over 70 years, Ashford Formula is the trusted product for permanent, superior concrete floor results.



FERRO TORRE SA  
GUAYAQUIL, ECUADOR  
by SEPISA CORP  
2017

**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 ft<sup>2</sup>/gal (5 m<sup>2</sup>/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.

**SURFACE PREPARATION**

- Freshly Finished Concrete (NEW):  
No preparation required.
- Existing Concrete (OLD):  
Sweep, scrub or strip concrete to remove any surface contaminants or film.

**APPLICATION**

Only one permanent application is required. Apply with high-volume, low-pressure sprayer 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 automatic scrubber.

\*See *Spec Data Sheet* or *Application Specifications* for specific details.

**DRYING TIME**

One (1) to three (3) hours. The surface may be used as soon as the application is complete and the surface is dry to the touch. Newly placed concrete requires the normal hardening period.

**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 the initial sheen.

**EQUIPMENT CLEAN-UP**

Use soap and water before the Ashford Formula dries.

**PAINTING**

Allow at least seven (7) drying days before applying paint on existing concrete.

Allow twenty-eight (28) days for proper curing before painting new concrete.

**NOTES**

*Apply to colored concrete only after the slab is fully cured, unless installed by a factory certified applicator.*

*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 Ashford Formula is still in liquid form.*

*The Ashford Formula may not prevent deterioration of floor slabs on which salts from ice melt are allowed to accumulate, especially when the floor is exposed to frequent wet/dry cycles. Regular and frequent cleaning of all slabs exposed to road salts is critical to preventing salt-related damage.*

*Although the Ashford Formula provides a dense concrete surface, it cannot in all cases prevent the migration of moisture vapor from beneath a floor slab. In conditions of high vapor drive, salts and other inorganics may still be deposited on concrete floor surfaces treated with the Ashford Formula, especially when no vapor barrier has been installed beneath the slab.*

*Ashford Formula is a highly effective compound which delivers superior results. Application should be performed by qualified contractors with a clear understanding of its application and uses. \*See **Spec Data Sheet** or **Application Specifications** for specific details.*

QUICK LINKS

APPLICATION  
SPECS



HPD  
v2.1



MANU  
SPEC



SAFETY  
DATA  
SHEET  
(SDS)



SPEC  
DATA

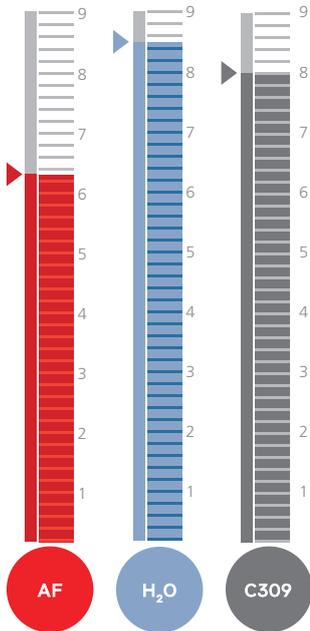




## INCREASED ABRASION RESISTANCE

ASTM C 779 - Depth of Wear

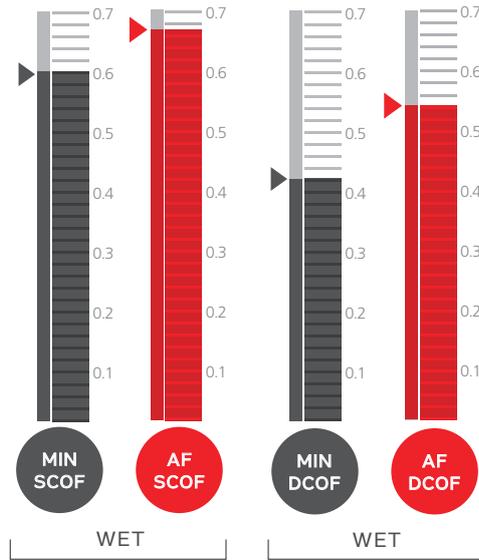
Abrasion Resistance to Revolving Disks:  
An **improvement of 32.5%** over untreated samples after 30 minutes.



## 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  $\mu\text{m}$ . **Fewer unhydrated cement grains mean better curing.**



## HIGHER FRICTION

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

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

## 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 detergent 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

- Single dose packaging for auto scrubbers and mop and bucket cleaning

OIL EMULSIFIER,  
& ACRYLIC  
STRIPPER:



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

## CASE STUDY: NORTH POINT TOYOTA



*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



AIRCRAFT HANGAR  
BRUNEI  
by BUE BRUNEI  
2014

*The TRUTH is...*  
*How you treat your floor now, determines  
how your floor will treat you down the road.*

## 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

- ▶ 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 concrete will retain its natural concrete appearance).**
- ▶ The density and hardness of the floor will be immediately enhanced. However, care should be taken not to gouge the floor with nails, etc. after the initial placement.
- ▶ 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 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.

# 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



PREPARE

FILL

## 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 DENSIFIER

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.



1989



2009





REPAIR

DENSIFY

DENSIFY-POLISH

PROTECT

CLEAN + MAINTAIN

Product availability varies by market. Contact your local representative.

## 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.

### LEED PLATINUM

*The John and Frances  
Angelos Law Center*

University of Baltimore

by Cuvillo Concrete

2012



### 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™*.

\*Qualifying conditions apply.

**CURECRETE -  
SETTING THE  
STANDARD,  
RAISING THE  
BAR**



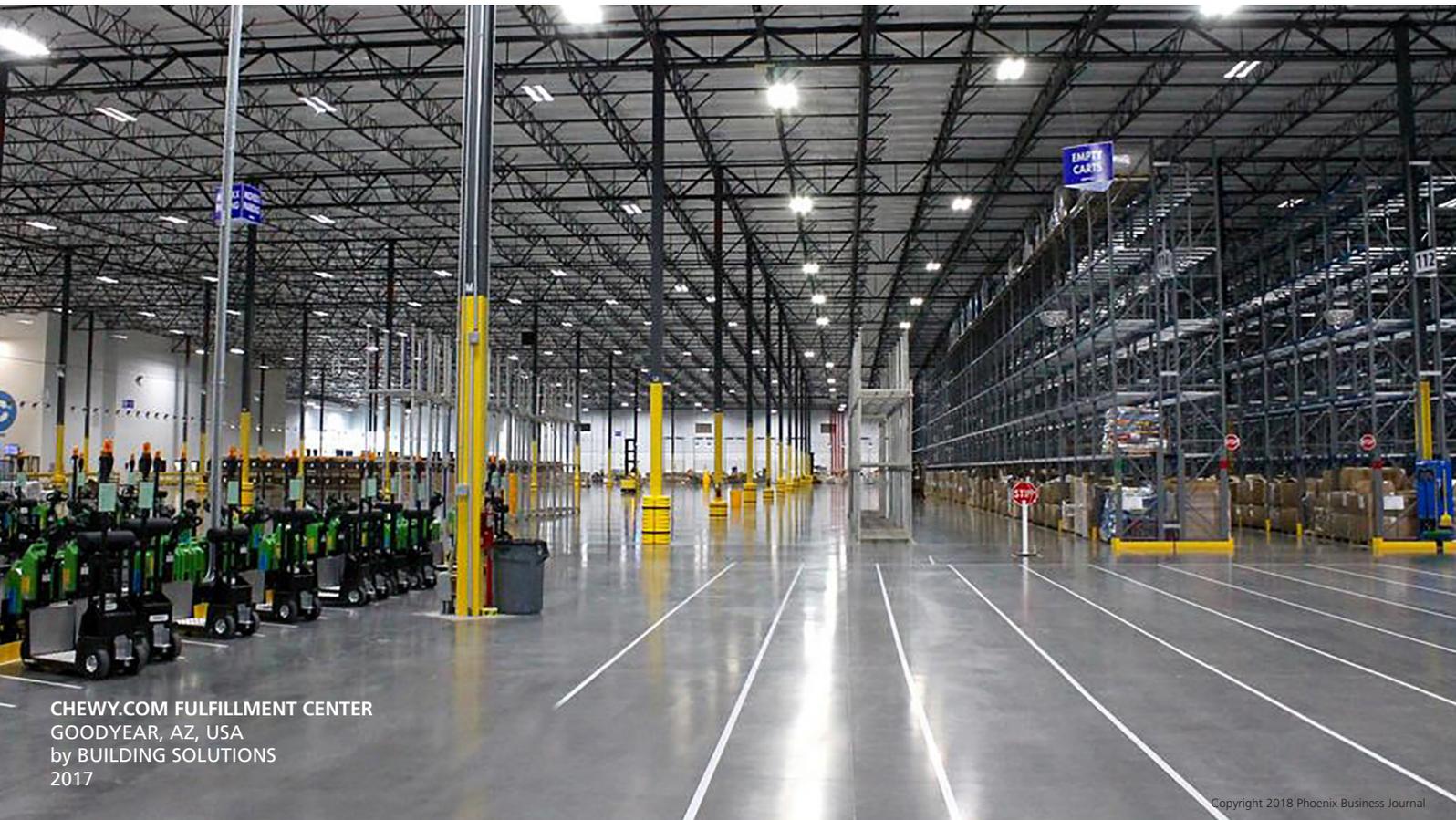
Curecrete Distribution, Inc. has been providing leadership in the concrete densification industry for more than 70 years. Curecrete continues to lead with an unwavering commitment to superior products, best practices and industry expertise.

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[www.ashfordformula.com/ reps](http://www.ashfordformula.com/ reps)



CHEWY.COM FULFILLMENT CENTER  
GOODYEAR, AZ, USA  
by BUILDING SOLUTIONS  
2017

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**A SOLID FOUNDATION, FROM THE GROUND UP**  
*Because your business productivity requires a solid, **DENSIFIED** concrete floor.*