

 **RUST-OLEUM**<sup>®</sup>

  
**CITADEL**<sup>®</sup>  
FLOOR FINISHING SYSTEMS



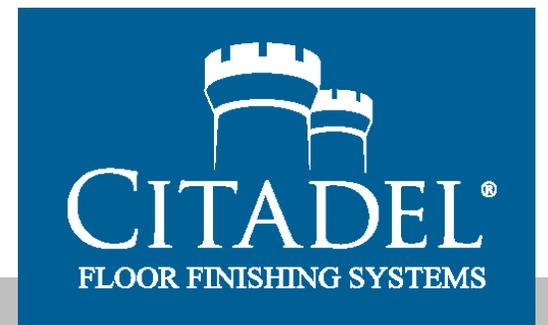
Citadel Floor Coating Training

March 21, 2024

# Agenda



- ✓ Overview - Citadel Floor Finishing Systems
- ✓ High Performance Broadcast Systems - One Day Floors
- ✓ Surface Preparation
- ✓ Patch/Repair & Special Purpose Products
- ✓ Specialty Primers & Basecoats
- ✓ System Comparisons - Base Coat Selection
- ✓ Top Coat Selection + Top Coat Options
- ✓ Best Practices & Key to Successful Installs



# Base Coat Demo

## Citadel Polyurea 350

# Citadel Floor Finishing Systems - Our Advantage

- Complete Systems for Residential, Commercial and Industrial Flooring Markets
- Innovative Product Assortment: Good, Better, Best
- Market Leading Technical and Customer Service Support



# Key Flooring Markets Served

## Healthcare

- Lobbies
- Cafeterias
- Kitchens
- Labs
- Mechanical rooms
- Restrooms
- Locker rooms
- Emergency rooms
- Hallways

## Residential

- Garages
- Interior floors
- Sidewalks
- Patios
- Porches

## Animal facilities

- Veterinarian clinics
- Animal hospitals
- Kennels/boarding facilities
- Shelters

## Education

- Restrooms
- Kitchens
- Classrooms
- Labs
- Cafeterias
- Locker Rooms
- Mechanical Rooms
- Bleachers
- Hallways

## Commercial

- Fire stations
- Kitchens
- Locker rooms
- Restrooms
- Service areas
- Storage areas
- Hallways

## Retail

- Automotive showrooms
- Service bays
- Garages
- Restaurants
- Kitchens and prep
- Restrooms
- Stadium concession areas
- Breakrooms
- Locker rooms
- Retail areas

## Manufacturing and industrial

- Shop floors
- Warehouse floors
- Manufacturing plants
- Breakrooms
- Loading docks
- Locker rooms
- Machine/maintenance rooms
- Restrooms

## Food service

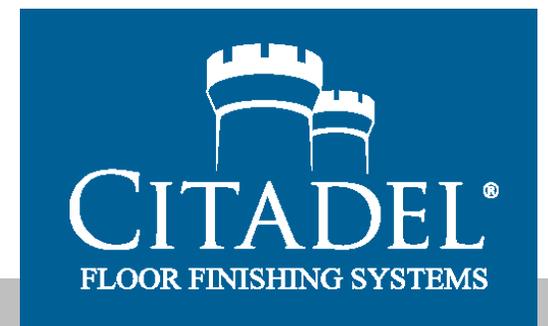
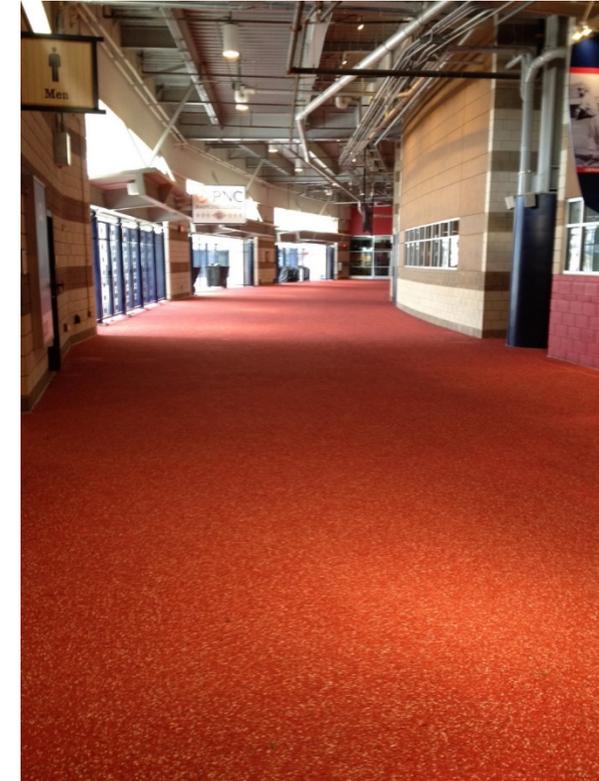
- Restrooms
- Food prep
- Kitchens
- Bar areas
- Dining areas

# The Citadel Advantage



Easy and Repeatable, Fast and Durable

- ✓ Easy Application
- ✓ Consistent, Repeatable Results
- ✓ Quick Return to Service
- ✓ Robust Innovative Products



# Citadel Floors – One Stop Shop



*“Best in Class finishes for high performing decorative flooring in Residential, Commercial and Industrial Markets”.*

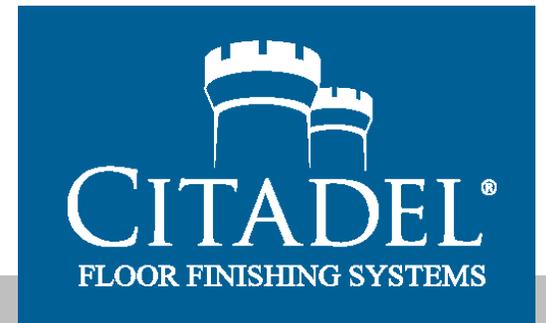
- Polyurea Basecoats
- Polyaspartic Topcoats
- Urethane Topcoats
- Moisture Vapor Barriers
- Premium 100% Solids Epoxies
- Specialty Floor Coatings
- Patch & Repair
- Aggregates / Anti-Slip Options
- Sundries & Accessories



# The Citadel Advantage – Flooring Center of Excellence

Flooring Center of Excellence integrates customer service, R&D, marketing, technical support, sample production and manufacturing in one location.

- Flooring Center Site, 110,000 sf
- 85,000 sf of Manufacturing
- 5,000 sf of R&D
- Concrete Application Lab
- Full Sample Department
- Built for the Future



# Broadcast Flooring Systems

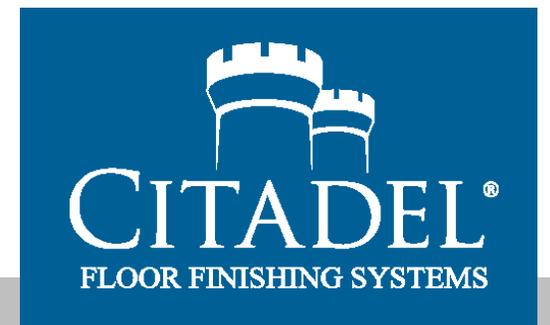
- Base coat provides adhesion to surface and receives broadcast material
- Broadcast material adds decorative effect, durability and anti-slip. Vinyl flake, colored quartz and silica quartz is commonly used.
- Top coat encapsulate the broadcast material and add durability/longevity



# Citadel Flooring Installation Process



- Inspect
- Product System Selection
- Surface Preparation
- Patch and Prime
- Product System Installation



# Surface Preparation & Substrate Evaluation

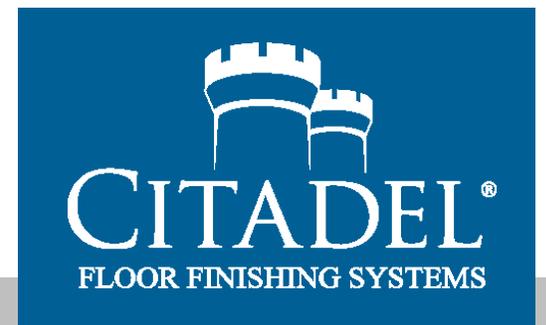
No single facet of a concrete coating contributes more to the **success** or **failure** of the application than the evaluation of the substrate and proper surface preparation.

Surface PREPARATION will vary depending upon the requirements of the coating system selected

- Thickness of coating
- Aesthetic value
- Project limitations

Mechanical PREPARATION is the most common method of surface PREPARATION

- Diamond Grinding
- Shot Blasting



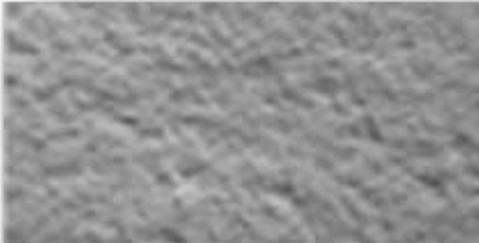
# Surface Preparation

## Concrete Surface Profile Specifications

CSP 2 (grinding)



CSP 3 (light shotblast)



## ICRI: Nine Concrete Surface Profile (CSP) Configurations

- **CSP 1 – acid etched**
- **CSP 2 – grinding**
- **CSP 3 – light shot blast**
- **CSP 4 – light scarification**
- **CSP 5 – medium shot blast**
- **CSP 6 – medium scarification**
- **CSP 7 – heavy abrasive blast**
- **CSP 8 – scabbled**
- **CSP 9 – heavy scarification**



INTERNATIONAL  
**CONCRETE REPAIR**  
INSTITUTE

  
**CITADEL**<sup>®</sup>  
FLOOR FINISHING SYSTEMS

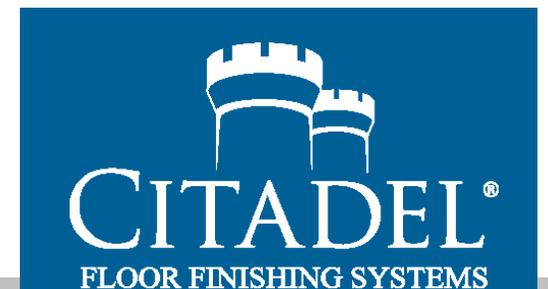
# Concrete Surface Inspections

## Moisture Testing



How to examine and prepare the concrete substrate prior to resinous flooring installation;

Moisture vapor transmission;  
ASTM F2659-23 Preliminary Evaluation Using a Non-Destructive Electronic Moisture Meter



# Concrete Surface Inspections Moisture Testing



How to examine and prepare the concrete substrate prior to resinous flooring installation;

Moisture vapor transmission;  
ASTM F 1869 (Calcium Chloride Testing)  
ASTM F 2170 (Internal Relative Humidity Testing)

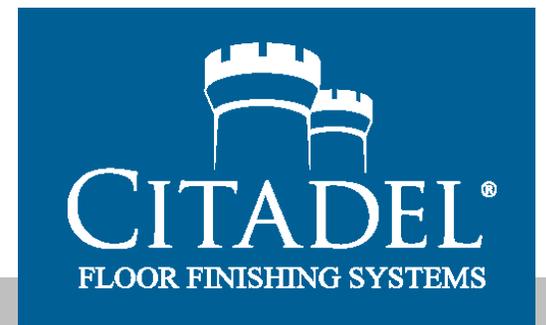
## Calcium Chloride vs Relative Humidity Testing



# Game Changing Products – Specialty Primers

## Ultra Hydro-Stop 100% Solids Vapor Barrier

- One-coat, 100% Solids Epoxy, membrane-forming, moisture vapor control system formulated to bond to concrete with high (or excessive) relative humidity (RH)
- Designed to reduce moisture vapor emission levels from 25 lbs./1000 sq. ft./24 hours to 3lbs./1000 sq. ft./24 hours or less. With a low permeability of 0.09 perms (ASTM E96)
- Citadel UHS is an excellent moisture blocker for virtually all types of flooring, including low permeable flooring
- Ideal for commercial, industrial and institutional applications where moisture vapor control may be an issue

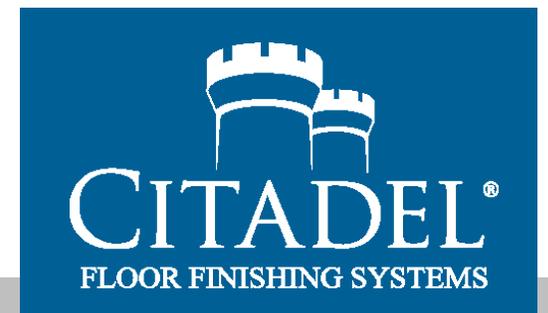


# Game Changing Products – Specialty Primers

## EP-55 Primer

Citadel® EP 55 is a two component, water-based epoxy primer designed to improve the adhesion of floor coatings over difficult to coat, or marginally prepared substrates. Substrates include, hard-troweled concrete, aluminum and various types of tiles. EP 55 primer can be top coated with most types of floor coating technologies including epoxies and polyurethanes

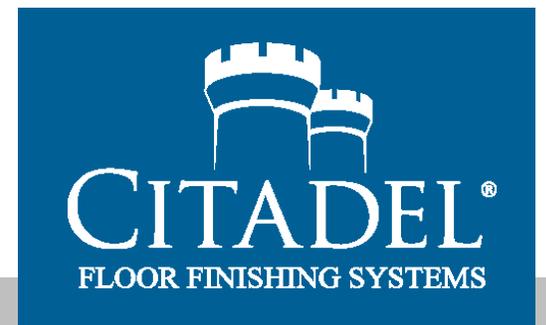
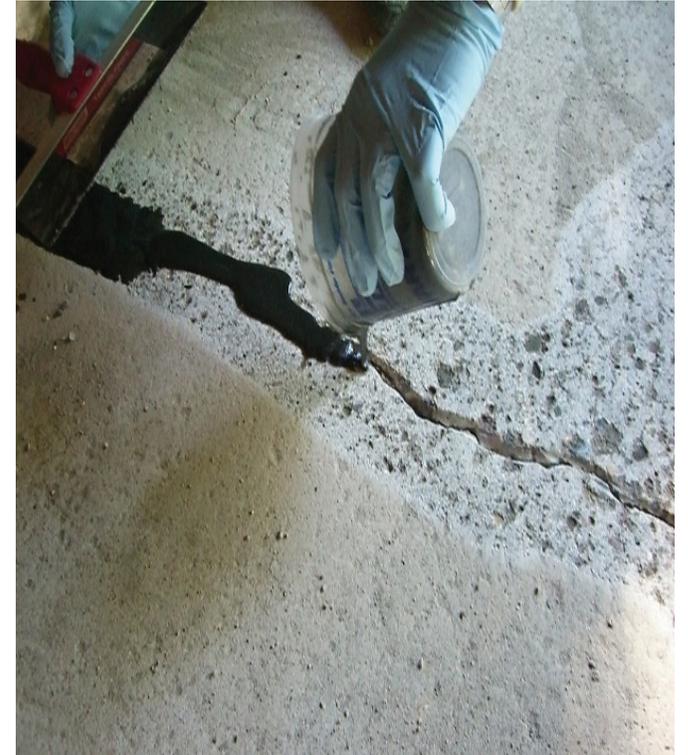
- Designed to improve the adhesion of floor coatings over difficult to coat, or marginally prepared substrates.
- Excellent as a primer/basecoat for warehouse line striping, zone marking
- Can be top coated after 5 hours and before 7 days
- Compatible with most flooring technologies



# Game Changing Products – Patch & Repair

## Fortification Formula Polyurea Crack Repair

- Easy Application – 1:1 mix, Self Leveling
- Quick Return to Service
  - Walk on / Grind in 15 minutes
- Cold Temp Cure Down to -5F
- Consistent, Dependable Results



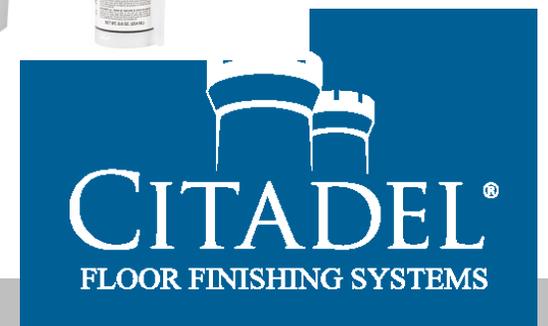
# Game Changing Products – Patch & Repair



**TurboKrete®:** All-Purpose Epoxy Repair quickly and easily repairs concrete cracks, spalls and leaks. These 100% solids epoxy products are available in two application methods; a pre-measured, three component, trowelable epoxy mortar in a pail, and also a convenient 2K caulk tube cartridge.

## **Trowelable Epoxy Mortar:**

- Trowelable Epoxy Mortar
- Dries 3X stronger than concrete
- Can be used vertically and horizontally
- Great for repairing steps and curbs
- Dries quickly
- light traffic in 1.5 to 4 hours
- Heavy traffic in 6-8 hours
- Convenient premeasured three component kit
- VOC Compliant Nationwide



# PolyFlex 93

Polyflex-93 is a two component, 100% solids, VOC Compliant, self-leveling flexible control joint filler. It cures rapidly and consistently at temperatures ranging from 0° to 120°F. With a tack-free time of less than 25 minutes, and allows vehicle or foot traffic in one hour. Polyflex-93 can be easily coated over with a wide variety of Citadel products.

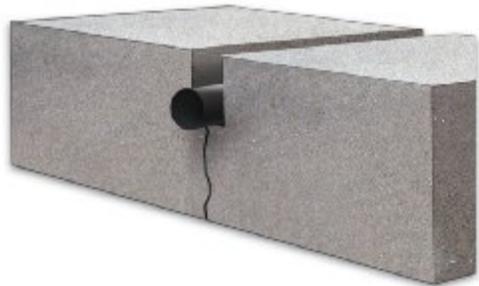
- Two component, 100% solids
- Self-leveling flexible
- For control joint filler & cracks\*
- Installation temp 0° to 120° F
- Tack free in less than 25 minutes
- Countable to create a seamless floor



# PolyFlex 93 – Control Joints or Cracks:



1. • Clean out Joint with diamond blade to provide a clean porous surface.



2. • Insert Backer Rod  
• Must be slightly bigger than joint



3. • Overfill with PolyFlex 93  
• After firm\* shave with razor scraper



# Game Changing Products – Patch & Repair

## Self Leveling Concrete Patch Compound

- Easy Application – Add Water, Mix and Pour
- Fiber Reinforced for Durability
- Feather Edge to 4” thick\* (thickness will affect recoat time)
- Quick Return to Service – Walk on in 30 minutes, Drive on in 2 hrs.



# Patching & Repairing Products

## Ultra Hydro Stop

### Demo

# Grind & Seal Flooring System



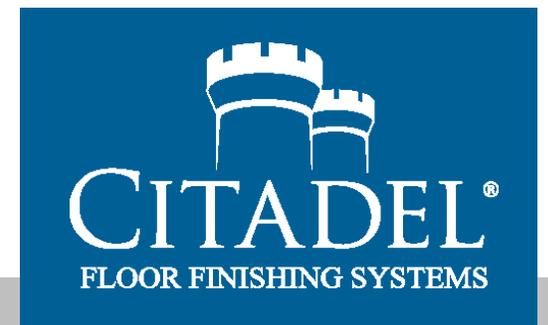
- Mechanically abrade the floor by diamond grinding to achieve a final 80–120 grit finish, reference profile CSP-2 according to ICRI.
- Apply clear **RG-70** at a rate of 250 to 300 ft<sup>2</sup> per gallon
- Apply Polyurea1 HD top with UDP at a 400 to 500 ft<sup>2</sup> coverage rate
- \*Add Durability Plus 220 sieve Polycarbonate for additional abrasion resistance at a rate of to desired effect, suggest sample to define.



# One-Day Smooth/Neat Flooring System



- Base coat of Polyurea 350 at 250 ft<sup>2</sup> per gallon
- Pigmented **RG-70**, RG80X, or UL80
- Pigmented **RG-70**, RG80X, or UL80
- Pigmented Polyurea1 HD top with Ultra Durability Plus 220sieve Polycarbonate for additional abrasion resistance



# One-Day Smooth/Neat Flooring System

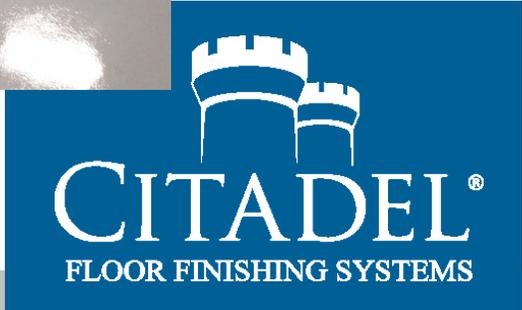
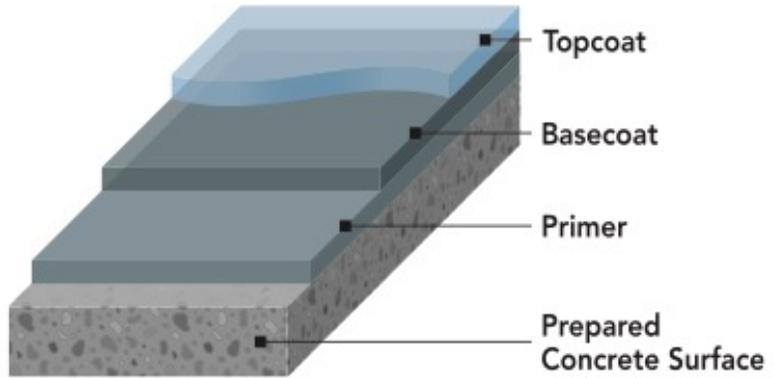
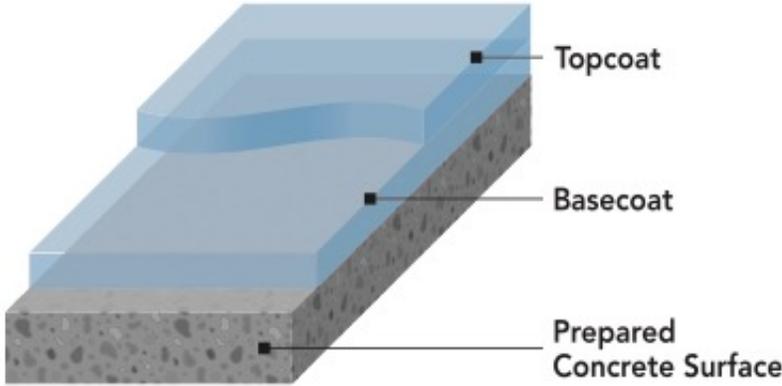
- TYPICAL AREAS OF USE
- Warehouses
- Manufacturing areas
- Grow facilities
- Laboratories & clean rooms
- Automobile service areas & garages
- Exhibition halls
- Medical & educational facilities
- Aircraft hangars



# One-Day Smooth/Neat Flooring System



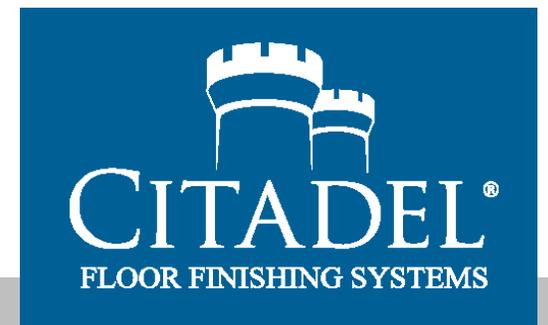
\*GOOD = Prime & Base Coat \*BETER = Prime, Base & Top Coat \*BEST = Prime, 2 Base Coats & Top Coat



# One-Day Silica Broadcast Flooring



- Base coat of Polyurea 350 @ 100 to 150 ft<sup>2</sup> per gallon
- Broadcast to rejection rate is ½ lb per ft<sup>2</sup>
- Allow 2-4 hours cure time before cleaning and collecting excess
- Intermediate coat of pigmented RG80x or UL80 @ 100 ft<sup>2</sup> pr gln
- Broadcast to rejection rate is ½ lb per sq ft.
- Allow 2-4 hours cure time before collecting excess
- Grout coat of pigmented RG80x or UL80 @ 100 ft<sup>2</sup> pr gln
- \*Optional but highly recommended application of clear Poly1 HD for additional abrasion & chemical resistance



# One-Day Color Quartz Broadcast Flooring



- Base coat of Polyurea 350 @ 100 to 150 ft<sup>2</sup> per gallon
- Broadcast to rejection rate is ½ lb per ft<sup>2</sup>
- Allow 2-4 hours cure time before cleaning and collecting excess
- Intermediate coat of clear RG80x or UL80 @ 100 ft<sup>2</sup> pr gln
- Broadcast to rejection rate is ½ lb per sq ft.
- Allow 2-4 hours cure time before collecting excess
- Grout coat of clear RG80x or UL80 @ 100 ft<sup>2</sup> pr gln
- \*Optional but highly recommended application of clear Poly1 HD for additional abrasion & chemical resistance

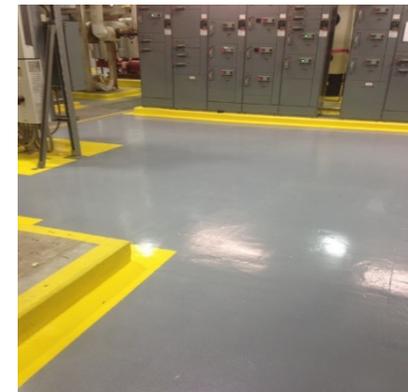


# One-Day Color Quartz Broadcast Flooring



- TYPICAL AREAS OF US:

- Commercial kitchens\*
- Public restrooms
- Locker rooms
- Automobile service areas
- Wet or dry processing areas
- Medical
- Educational
- Warehouses
- Manufacturing areas
- Pump/Mechanical Rooms



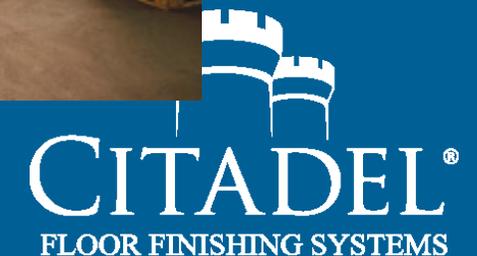
# Shop Flooring (Silica Broadcast)



- A seamless fluid-applied, silica reinforced resinous flooring system with increased abrasion and impact resistance. Ideal for residential and commercial projects where a functional projective coating where higher durability is needed.

## **BENEFITS:**

- Increased slip resistance in wet areas
- High impact & abrasion resistance
- Suitable for high traffic from forklifts and vehicles
- Seamless, nonporous and easy to maintain
- Resistant to hot tire pickup
- For surfaces in need of repair and/or protection



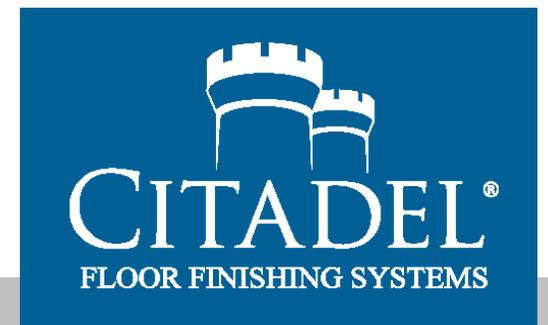
# One-Day Broadcast Flooring – Decorative 1/4” Chip



- Are fluid-applied, broadcast systems using vinyl chips applied to properly prepared substrates. They are pored in place systems with minimal down time and allow full traffic in 24 hours. They create a seamless, protective flooring that offers high abrasion & chemical resistance. Ideal for residential and commercial projects where a decorative, yet durable flooring system is desired.

## **BENEFITS:**

- One-day installation for minimal downtime
- Flex-Coat creates better adhesion and higher Impact resistance compared to all other systems
- Resistant to damage from water, de-icing salt, and petrochemicals
- Slip resistant options available
- Non porous, seamless, and easy to clean and maintain
- Resistant to hot tire pickup
- For new and existing surfaces in need of repair and/or protection

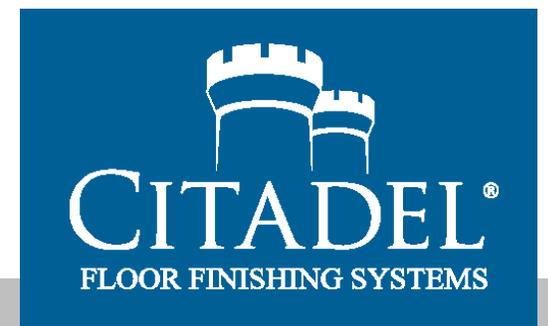


# Citadel's Market Leading 1-Day Floor

## *"Our Legacy Flooring System"*



1. Polyurea 350 basecoat
  2. Broadcast material of your choice
  3. RG-80x topcoat
- Quick return to service, saves time and reduces disruptions
  - Versatile. Provides appealing appearance across a wide range of floors.
  - Tough, durable, color stable finish that protects against the chemicals, abuse and wear.
  - Consistent Results!



# One-Day Broadcast Flooring – Decorative ¼” Chip

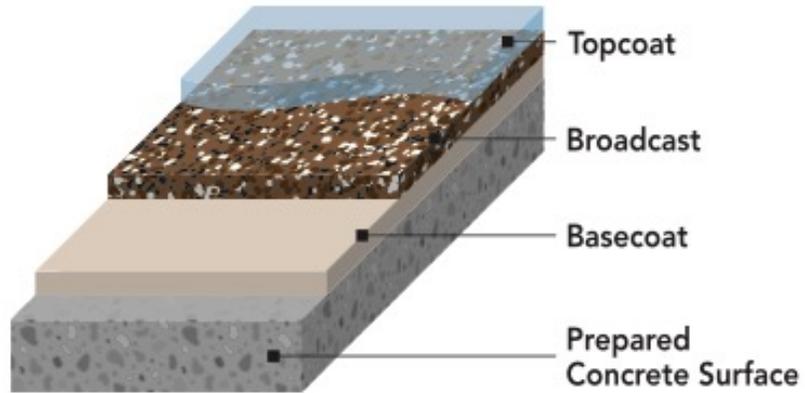


- Base coat of Polyurea 350 at 250 ft<sup>2</sup> per gallon
- Broadcast to rejection rate is 1 lb per 6 sq ft.
- Base coat must be completely buried
- Allow 2-4 hours cure time before collecting excess
- Application of clear top coat(s) will dictate final profile

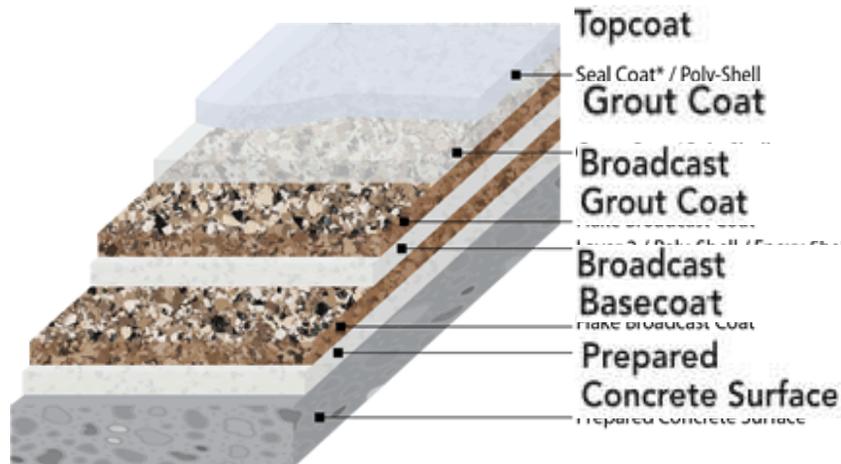


# One-Day Broadcast Flooring – Decorative ¼” Chip

## Single Broadcast



## Double Broadcast



# Adjustable Cure Rate Technology



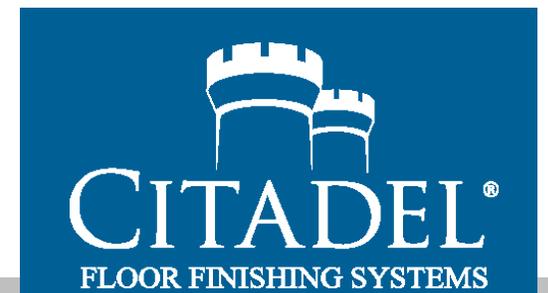
*“Specially formulated to deliver optimal product performance over a broad temperature range. Fast Return to Service, Consistent Results & Longevity”!*

## **Polyurea 350 Basecoat:**

- Summer Blend: 70-100F
- Winter Blend: 50-70F
- Artic Blend: 0-50F

## **RG – 80x Polyaspartic**

- Super Slow: 90F+
- Slow: 50-90F
- Fast: 0-50F

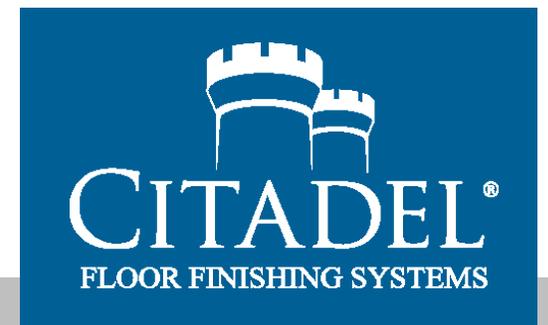
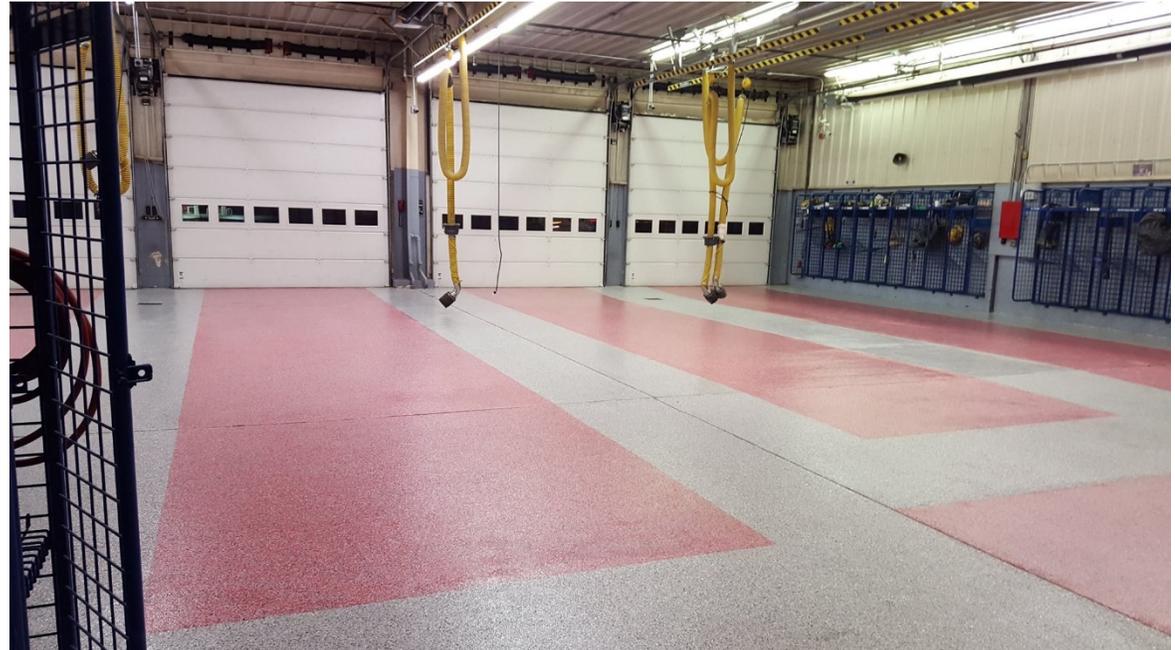


# Core High Performance Base Coats



*“Best in Class foundation for Residential, Commercial and Industrial Flooring”.*

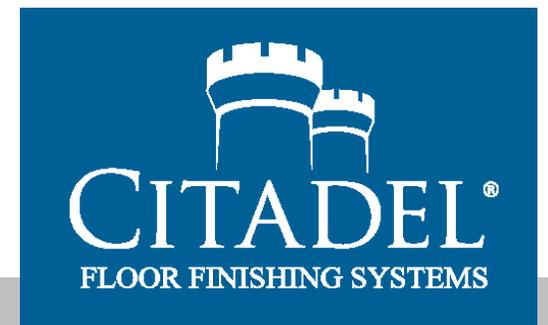
- Polyurea 350
- Ultra Hydro Stop



# Citadel Poly350 Base Coat



- 98% Solids Aromatic Polyurea
- Self Priming - Direct to Concrete
- **Superior Bond both mechanically & chemically\***
- **Flexible / 198% Elongation & Impact Resistant**
- **Low Temp Cure / Variable Cure Rate Technology**
- Excellent for Broadcast Systems – **Up to 45 min broadcast window**
- Recoat 2-4 hours
- 1:2 mix ratio (A:B)
- Applied at 250 ft<sup>2</sup> per gallon
- Available in Tan, Gray, Clear & pigmentable with universal color packs



# Core High Performance Base Coats



## *Ultra Hydro Stop:*

- Available in Gray, Tan & Clear
- Applied at 80 to 100 ft<sup>2</sup> per gallon
- 3:2 mix ratio
- 100% solids
- Able to receive broadcasted w/o reducing ability to stop moisture
- Stops up to 25 lbs. of moisture



# Metallic Flooring



Are fluid-applied, self-leveling, pored in place systems to properly prepared substrates. They create a seamless, protective unique flooring that offers a metallic, marbleized, high-end floor coating that offers high abrasion & chemical resistance and is easy to clean and maintain.

## **BENEFITS:**

- Suitable for high foot traffic and light/moderate traffic
- Seamless, nonporous and easy to maintain
- Ease of maintenance
- Aesthetic improvements
- Hard and abrasion resistant
- Stain and chemical resistant
- Antimicrobial
- Gloss. Satin and matte finish available



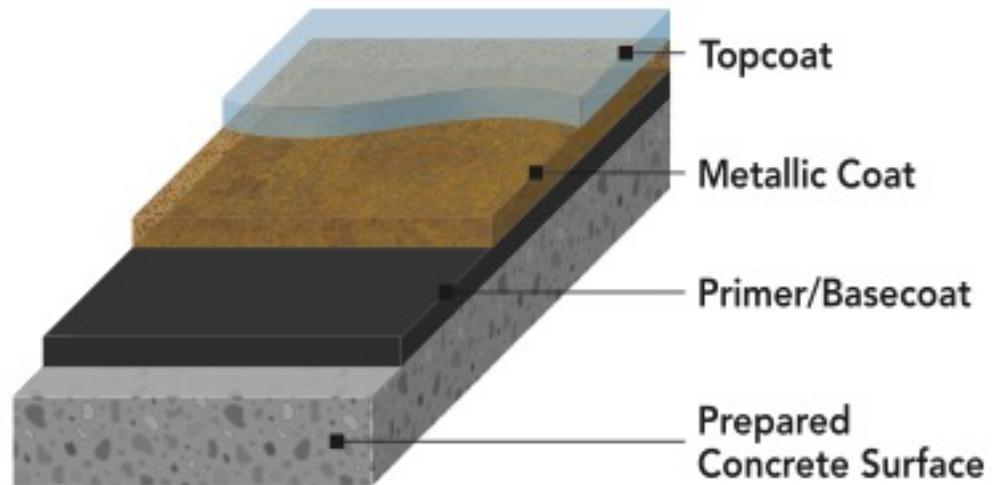
# Metallic Flooring

## TYPICAL AREAS OF USE:

- Residential projects
- Retail stores
- Automobile showrooms
- Restaurants & bars
- Hotels & casinos
- Art galleries & museums



# Metallic Flooring

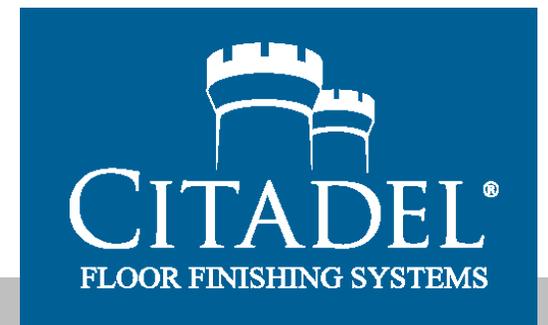


# Epoxy Smooth/Neat Flooring System

Used as a protective coating in warehouses, manufacturing plants, ...



- **\*Optional** - Primer/Base coat of Ultra Hydro Stop epoxy at 100 ft<sup>2</sup> per gallon
- Pigmented PLE-100 or SLE-100 epoxy at 150 ft<sup>2</sup> per gallon
- Pigmented PLE-100 or SLE-100 epoxy at 150 ft<sup>2</sup> per gallon
- (application of one or two coats, along with thickness are dependent on clients needs and budget.)
- Pigmented Polyurea1 HD top with Ultra Durability Plus 220sieve Polycarbonate for additional abrasion resistance

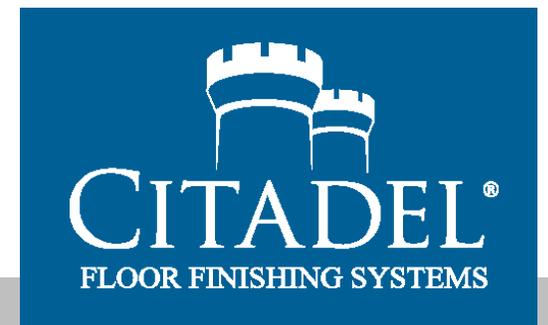


# Epoxy Silica Broadcast Flooring:

## Utility/Shop Flooring



- Base coat of PLE-100 epoxy @ 100 to 150 ft<sup>2</sup> per gallon
- Broadcast to rejection rate is ½ lb per ft<sup>2</sup>
- Once cured clean and remove excess
- Intermediate coat of pigmented PLE-100 @ 100 ft<sup>2</sup> pr gln
- Broadcast to rejection rate is ½ lb per sq ft.
- Allow to dry and cure before collecting excess
- Grout coat of pigmented PLE-100 or SLE-100 epoxies @ 100 ft<sup>2</sup> pr gln
- \*Optional but highly recommended application of Poly1 HD for additional abrasion & chemical resistance



# Silica Broadcast Flooring:

## Utility/Shop Flooring

A seamless fluid-applied, silica reinforced resinous flooring system with increased abrasion and impact resistance. Ideal for residential and commercial projects where a functional projective coating where higher durability is needed.

### **BENEFITS:**

- Increased slip resistance in wet areas
- High impact & abrasion resistance
- Suitable for high traffic from forklifts and vehicles
- Seamless, nonporous and easy to maintain
- Resistant to hot tire pickup
- For surfaces in need of repair and/or protection



# Core High Performance Base Coats



## *Ultra Hydro Stop:*

- Available in Grays, Tan & Clear & custom colors
- Applied at 80 to 100 ft<sup>2</sup> per gallon
- 3:2 mix ratio
- 100% solids
- Able to receive broadcasted w/o reducing ability to stop moisture
- Stops up to 25 lbs. of moisture

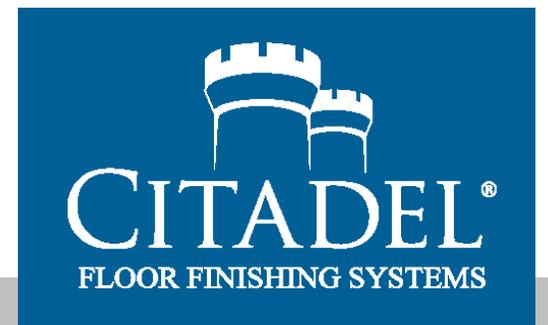


# Core - High Performance Base Coats



## *PLE-100: 100% Solids Epoxy*

- Available in Clear and Armor Gray, Light Gray & Dunes Tan
- Applied at 80 to 100 ft<sup>2</sup> per gallon
- 2:1 mix ratio
- 30-35 minutes Pot Life
- Direct to Concrete
- Low odor 100% solids
- Tenacious adhesion
- Chemical resistant

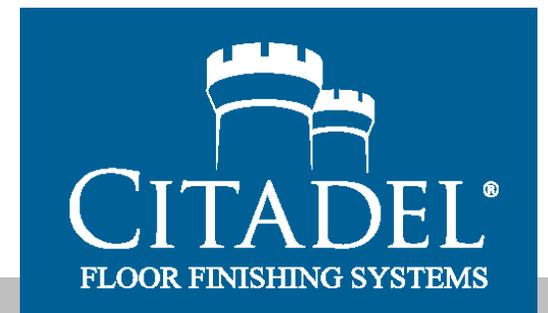


# Premium Epoxy Top Coat



## *SLE-100: 100% Solids Epoxy*

- Available in Clear and Armor Gray, Light Gray & Dunes Tan
- Applied at 80 to 100 ft<sup>2</sup> per gallon
- 2:1 mix ratio
- 30-35 minutes Pot Life
- Applied to a primer coat
- Low odor 100% solids
- High UV resistance
- Chemical resistant

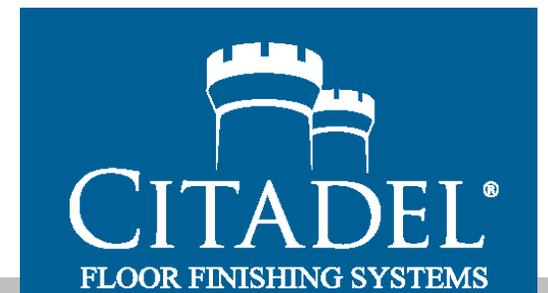


# Core High Performance Top Coats



*“Best in Class finishes for high performing decorative flooring in Residential, Commercial and Industrial Markets”.*

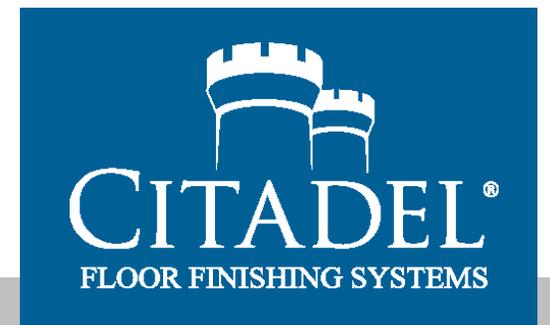
- **RG -70**
- **RG-80x**
- **UL-80**
- *ET-80*
- **Poly-1 HD**
- **Poly-3 WB**
- **Poly-4 XT**



# Citadel RG-80x Polyaspartic Top Coat



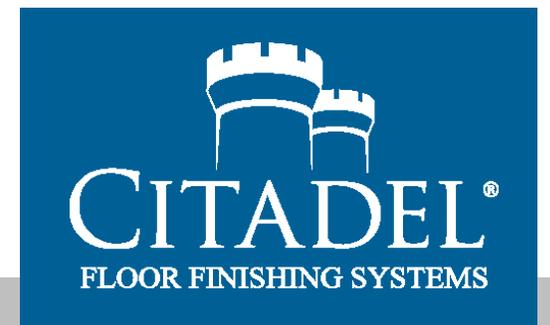
- Workhorse 80% Solids Aliphatic Polyaspartic
- UV Stable
- Chemical Resistant
- Low Temp Cure / Variable Cure Rate Technology
- 1A : 1B Mix Ratio
- 1 Coat Coverage Top Coat for Full Chip System
- 24 Hour Cure for Vehicle Traffic
  - Super Slow requires 48 hour cure for vehicle traffic



# Citadel UL-80 Polyaspartic Top Coat



- Ultra Low Odor
- 80% Solids Aliphatic Polyaspartic
- UV Stable
- Chemical Resistant
- 1A : 1B Mix Ratio
- 1 Coat Coverage Top Coat for Full Chip System
- 24 Hour Cure for Vehicle Traffic

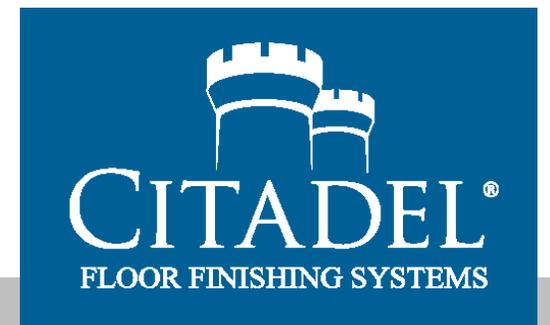


# Poly-3 WB

**\*GOOD\***

Polyurea 3 WB is a High Solids (67%) premium waterborne two-part high performance urethane coating which utilizes aliphatic urethane polymer technology. It provides excellent film hardness, chemical, abrasion and UV resistance. It is available in Clear, Dunes Tan, and Light Gray and in a high gloss or matte finish.

- High solids 2K Urethane
- Good Abrasion and Excellent Chemical Resistance
- Add Ultra Durability Plus to increase abrasion resistance
- Available in Clear, Dunes Tan or Light Gray
- Available in Gloss or Matte Finish



# Polyurea-1 HD

**\*BETTER\***

Polyurea-1 HD is a high solids, single component Aliphatic Urethane that provides a high gloss, smooth finish with excellent abrasion and chemical resistance. Has a high gloss finish or satin by adding Ultra Durability Plus additive. Comes in clear but can be pigmented using CFFS colorants.

- High solids 1k urethane.
- Long work time
- High chemical & abrasion resistance
- Gloss or satin finish
- Clear or pigmentable
- Open to vehicle traffic in 24 hours\*
- Unused material is good for 6 months\*



# Poly-4 XT

**\*BEST\***

- Is a ready to use, easy to install high performance gloss topcoat that provides industry leading durability and return to service performance. Ideal for decorative and functional flooring applications that require protection from UV rays, abrasion, scratches and many of today's harshest chemicals. Poly-4 XT is tough and durable, at least 2X's more scratch and mar resistance when compared to moisture cured urethanes and polyaspartics.

- 1K, Easy To Use
- High Performance Gloss Topcoat
- Highly Abrasion & Scratch Resistant\*
- Highly Chemical Resistant

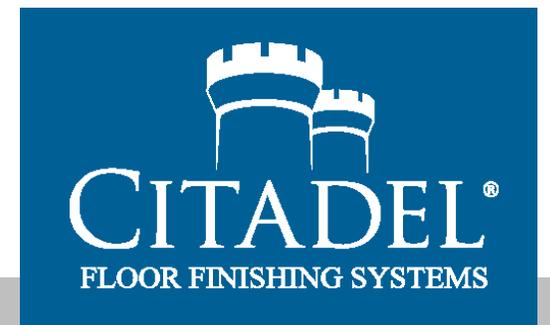


Questions?



# Top Coat Demo

## Citadel RG80x Polyaspartic



# New All In One Packaging Coming Soon!



# Narrow Spiral Mixer

- Product Details
  - Narrow spiral mixer for use with new All-In-One packaging
  - In stock NOW!
- Features/Benefits
  - Allows for easy power mixing with new packaging components
    - Pre-mix A and B in the individual component containers
    - Same mixer can be used for combining both components in the provided outer packaging/mixing vessel
  - Fits most standard drills
  - Easy clean-up
- Accessories Catalogue
  - One SKU to be used across all brands
    - Stocked in Brooklyn Park
  - Pricing is consistent across all brands



# Patch And Repair

**TurboKrete®:** All-Purpose Epoxy Repair quickly and easily repairs concrete cracks, spalls and leaks. These 100% solids epoxy products are available in two application methods; a pre-measured, three component, trowelable epoxy mortar in a pail, and also a convenient 2K caulk tube cartridge.

## **Trowelable Epoxy Mortar:**

- Trowelable Epoxy Mortar
- Dries 3X stronger than concrete
- Can be used vertically and horizontally
- Great for repairing steps and curbs
- Dries quickly
- light traffic in 1.5 to 4 hours
- Heavy traffic in 6-8 hours
- Convenient premeasured three component kit
- VOC Compliant Nationwide



## Types of Concrete Joints

### Control Joint :

- Used for controlling shrink cracks in the first 90 days of the concretes curing.
- Used to control where a concrete slab cracks by allowing the crack to occur in the weakest point.
- Control joints are usually spaced between 15'-20' apart for slabs thicker than 7".
- Some control joints may function as expansion joints if no expansion joints were installed in the concrete. Check to determine if there is movement in the control joints. If so then the joint must be allowed to continue to move by treating it as an expansion joint.

## Types of Concrete Joints

### Expansion & Isolation Joints:

- Allows the concrete slabs to have areas for movement required by the expansion and contraction caused by temperature changes.
- Should be every 40’.
- Used to isolate a section or area of concrete such as around a column or pole.
- It stops a crack from continuing from one section of concrete to another.
- Common uses:
  - Concrete columns – parking garages, commercial buildings, etc.
  - Residential garages – Cold joints around perimeter of concrete slab.
- Can be filled with a sealant with a minimum of 100% tensile elongation and backer rod – 400-500% is better.

# PolyFlex 93

Polyflex-93 is a two component, 100% solids, VOC Compliant, self-leveling flexible control joint filler. It cures rapidly and consistently at temperatures ranging from 0° to 120°F. With a tack-free time of less than 25 minutes, and allows vehicle or foot traffic in one hour. Polyflex-93 can be easily coated over with a wide variety of Citadel products.

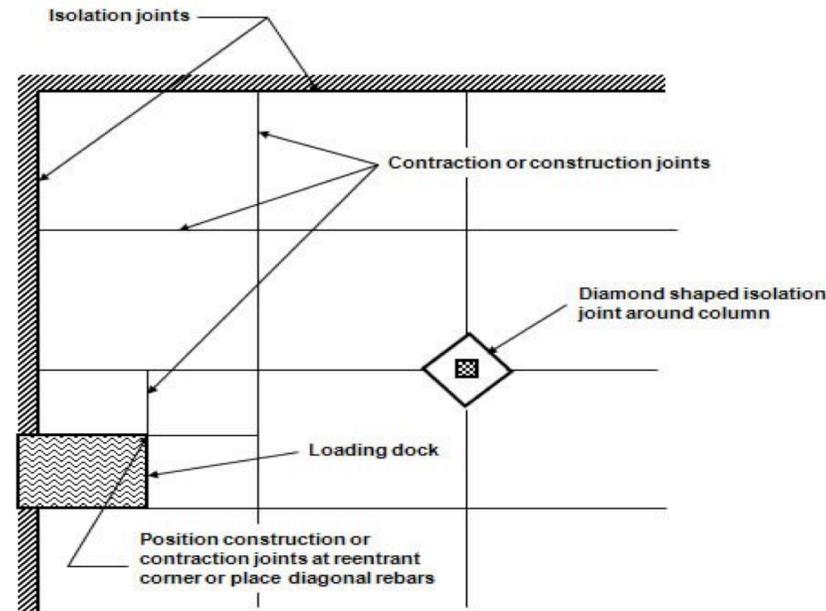
- Two component, 100% solids
- Self-leveling flexible
- For control joint filler & cracks\*
- Installation temp 0° to 120° F
- Tack free in less than 25 minutes
- Countable to create a seamless floor



## Types of Concrete Joints

### Construction Joint:

- Is the cold joint from pour to pour.
- Can be filled and treated as a crack with FORTIFICATION, PolyFlex 93, Ultra Hydro Stop or 100% solids epoxy.



# Flooring – System Comparison



Our formulated basecoat delivers better adhesion, longer durability:

- Superior substrate wetting and penetration
- Adhesion promoters that chemically bond to concrete
- Best in class impact resistance, flexibility & elongation

High Performance 1-Day Resinous Flooring Coating Systems			
Basecoat Comparison			
Performance Properties		Rust-Oleum's Polyurea Basecoat	Competitor's Polyaspartic Basecoat
Formulation	Solids	98%	Varies; 70% - 100%
Installation Application			
	Substrate Wetting	Superior	Fair
	Substrate Penetration	Superior	Fair
Installation Working Time			
	Coating application	20-25 Minutes	20-25 Minutes
	Chip application	45 Minutes	20-25 Minutes
Adhesion Performance			
	Adhesion to Marginal Substrates	Superior	Fair
	Mechanical Adhesion	Superior	Excellent
	Chemically Bonds to Concrete	Yes	No
	Tensile Strength	Superior	Fair
	Adhesion to Concrete	Superior	Fair
	Impact Resistance		
	Direct/Reverse	Superior	Fair



# Flooring – System Comparison



High Performance Flooring - System Comparison		
System	Epoxy Flooring System	1-Stop, 1-Day Flooring System
Installation Time	2 - Day	1 -Day
Application Temp	50 °F - 90 °F	30 °F - 90+ °F
Color/UV Stability	Very Good - Interior Use Only	Excellent - Interior & Exterior Use
Return To Service		
Recoat	12-48 hours	2-12 hours
Foot Traffic	12-16 hours	2-4 hours
Vehicle Traffic	36-48 hours	1 - Day
Longevity - Service Life	Better	Best
Wear - Abrasion Resistance	Very Good	Excellent
Chemical Resistance	Very Good - Excellent	Excellent



# Best Practices - Project Condition Report



## PROJECT CONDITION SURVEY (Fill out as completely as possible)

### DISTRIBUTOR INFORMATION

Distributor: \_\_\_\_\_ Date: \_\_\_\_\_  
 Location: \_\_\_\_\_ RO Acct Mgr: \_\_\_\_\_  
 Contact: \_\_\_\_\_ Telephone: \_\_\_\_\_

### PROJECT INFORMATION

Project: \_\_\_\_\_ Location: \_\_\_\_\_  
 Contact: \_\_\_\_\_ Telephone: \_\_\_\_\_  
 Total Sq. Ft. \_\_\_\_\_ Cove Lin. Ft. \_\_\_\_\_ Striping Lin. Ft. \_\_\_\_\_  
 Description of Project \_\_\_\_\_  
 Have there been previous problems with the concrete or any coatings applied to the concrete?  
 Yes  No If yes, explain \_\_\_\_\_  
 Special colors needed?  Yes  No If yes, explain \_\_\_\_\_

### CONCRETE SUBSTRATE

Condition:  Good  Exposed Aggregate  Uneven and Spalled  Chemical Corroded  
 Cracks:  Yes  No Vapor Barrier:  Yes  No  Unk  
 Area Pitched:  Yes  No Drains:  Yes  No  
 Floor subjected to:  Chemical  Wet  Scored  Impacted  Heavy Traffic  Dragged Objects  
 Thickness \_\_\_\_\_ Age \_\_\_\_\_ yrs. Above 1<sup>st</sup> floor?  Yes  No

### OPERATING ENVIRONMENT

Operating temperature of floor: \_\_\_\_\_ °F Installation Temperature \_\_\_\_\_ °F Installation Relative Humidity \_\_\_\_\_ °F

### CHEMICAL EXPOSURE:

Yes  No (If no, skip to DAILY OPERATIONS)

Chemical	%Conc. & Temp.	Immersion	Splash/Spill	Occasional/Accidental
_____ / _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ / _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ / _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### DAILY OPERATIONS:

Traffic Conditions:  Foot  Pallet Jacks  Fork Lifts  Vehicle  Semi-trailer Truck  
 Type of Wheel:  Rubber  Plastic  Steel  Pneumatic

### CLEANING PROCEDURES:

Hot Water  Steam  Caustics-pH  Acids-pH  CIP Temperature \_\_\_\_\_  
 Frequency:  Daily  Weekly  Monthly  Other \_\_\_\_\_

### SPECIAL CONSIDERATIONS:

Installation by:  Rust-Oleum Applicator  Customer in-house crew  
 Project Schedule:  Weekday  Weekend  Nights  Holiday Shutdown  
 Technical Support Requested  Yes  No  
 Other turn-around requirements?  Yes  No If yes, explain \_\_\_\_\_

### PROJECT RESPONSE TIME

Hot  Pending  Planning

### PRICING (Requirements of End-User)

Material Price per Foot  Materials only

### Report Completed by:

Name: \_\_\_\_\_ Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_ Zip: \_\_\_\_\_ Phone: \_\_\_\_\_

FAX TO: Rust-Oleum Direct Support Sales Group (847) 816-2272

EMAIL TO: [protectit@rustoleum.com](mailto:protectit@rustoleum.com)



# Best Practices – Product Selection



*Collectively, these factors establish the required product assortment for installation.*

- End-use requirements; installation, return to service, appearance and long-term performance
- Project Condition Survey results
- Good, Better and Best Considerations
- Installer experience
- Crew size



## Citadel Floor Finishing Systems – Product Benefits

- Easy, Consistent and Repeatable Installations
- Quick Return to Service
- Decorative Finishes bundled with Durable, Long Lasting Performance



# Questions?

***Thank you for Your Business!***