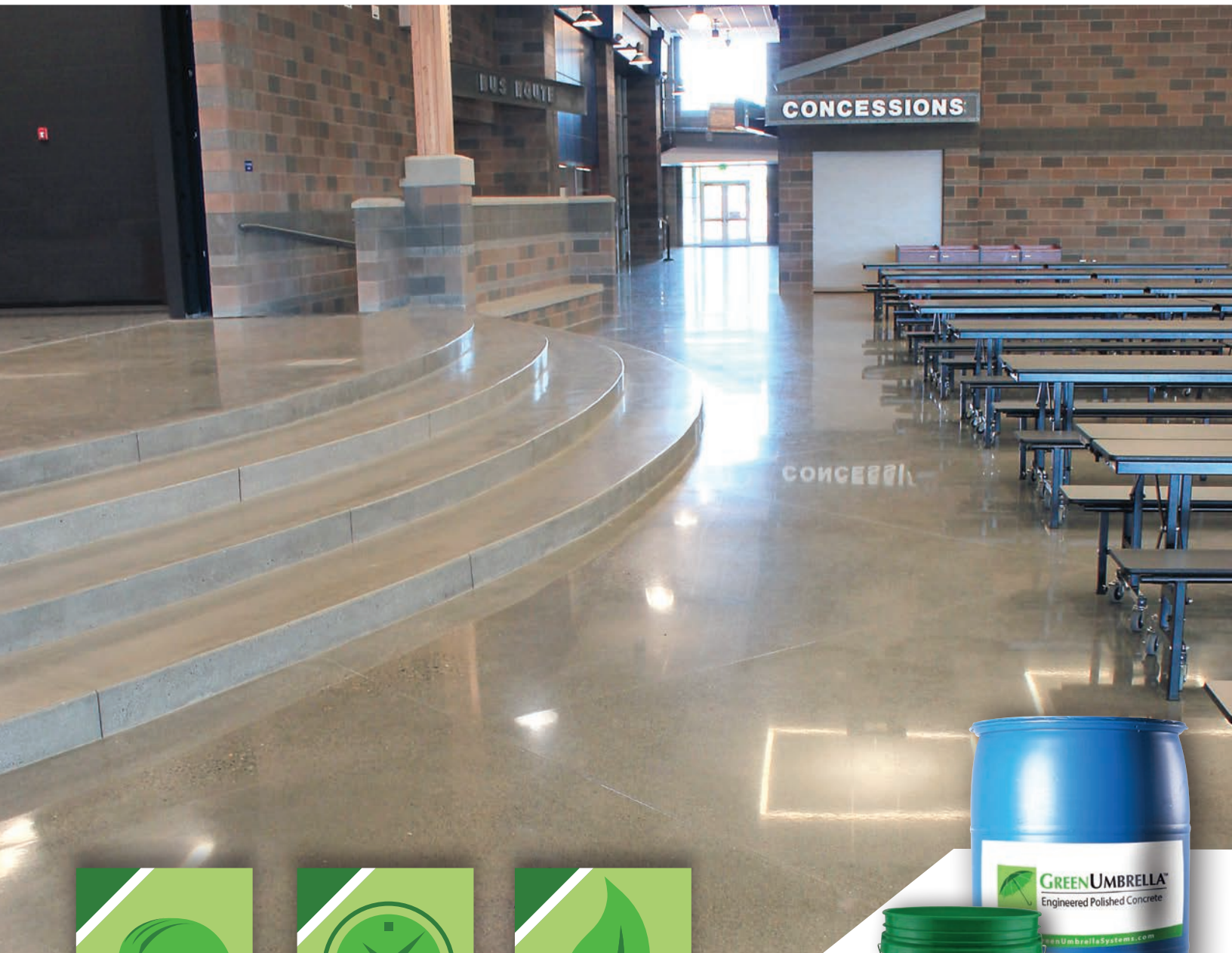




GREENUMBRELLA™
Engineered Polished Concrete



**CUT YOUR
LABOR**





**CUT YOUR
DOWNTIME**



**CUT YOUR
ENVIRONMENTAL
IMPACT**





ENGINEERED POLISHED CONCRETE

TREATMENTS THAT WORK
TOGETHER SEAMLESSLY

Green Umbrella™ offers a variety of polished concrete floor solutions ranging from the initial pour, all the way to the final finish. GU Products are engineered to help you cut your labor costs by reducing the amount of steps required to achieve the desired end-result. This in turn saves valuable downtime, allowing the project to move forward quicker. Additionally, GU products have a minimal ecological impact and a very low VOC content.



GreenCut™

Green Umbrella GreenCut™ is an environmentally friendly cutting and slurry agent. As part of the GreenCut System it cuts the concrete using molecular cutting agents, reducing the number of diamond steps and creating a less porous floor than could previously be achieved.

The Green Umbrella GreenCut System starts out by softening the concrete allowing for easier and faster processing. The frothy slurry created by the process is ground into the floor to help seal pores, producing a denser surface.

COVERAGE: 400-600 sqft/gal

VOLUME AVAILABLE: 5 gal pail, 55 gal drum

Features & Benefits

- pH neutral
- Reduces the number of grinding steps
- Cutting agent
- Slurry agent
- Creates a less porous surface
- Improved productivity
- Metal bond abrasives last significantly longer
- Super high gloss if desired
- Can be colored using a dye or micro-pigment

HYDRATE

The floor with water.

SATURATE

The substrate with GreenCut

***Achieve a polished floor
with just three abrasives!***

FULLY PROCESS YOUR FLOOR WITH JUST THREE ABRASIVES

1

GU
METAL

GRIND

Grind with GU metal abrasive.

2

GU
FUSION⁴⁰⁰

HONE

Hone with GU 400 fusion.

3

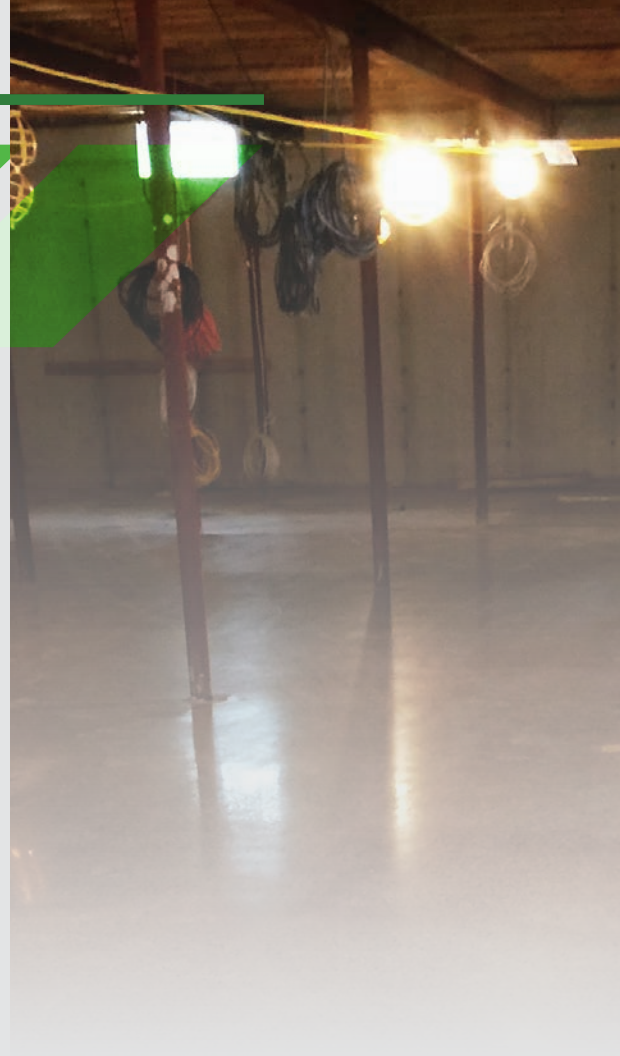
GU
FUSION⁸⁰⁰

POLISH

Polish with GU 800 fusion.

CONCRETE DENSIFIERS

Green Umbrella™ offers a variety of densifiers that can be used as standalone products, or combined with our colorants and surface treatments to enhance the durability of your concrete floors.



DryShield™

Green Umbrella DryShield™ is a concrete densifier that deeply penetrates and chemically reacts with concrete to create a floor surface that is harder, denser and less porous, while allowing for maximum penetration of concrete dyes.

COVERAGE: 400-600 sqft/gal

COVERAGE W/ GU GREENCUT: 600+ sqft/gal

VOLUME AVAILABLE: 2.5 gal, 5 gal pail, 55 gal drum



Water Based



pH Neutral



Tire Mark Resistant



Abrasion Resistant

Features & Benefits

- Superior stand alone concrete hardener.
- Increases hardness below 1/4 inch deep, while reducing porosity.
- Designed for use in an environmental, wet grinding process.
- pH neutral and non-hazardous.
- Will not yellow, has natural appearance
- Requires no rinsing and disposal – will not gel on surface.
- Decreases black tire marking, greatly improving appearance of floor.
- Stands up to heavy abrasion and foot traffic while providing excellent slip resistance.
- Water soluble
- No VOC's



HydroShield™

Green Umbrella HydroShield™ is a concrete densifier that deeply penetrates and chemically reacts with concrete to create a floor surface that is exceptionally water-resistant, harder, and more dense.

COVERAGE: 400-600 sqft/gal

COVERAGE W/ GU GREENCUT: 600+ sqft/gal

VOLUME AVAILABLE: 5 gal pail, 55 gal drum



Water
Resistant



Oil
Resistant



Chemical
Resistant



Breathable



pH Neutral



Tire Mark
Resistant



Abrasion
Resistant

Features & Benefits

- Superior stand alone concrete hardener.
- Increases hardness below ¼ inch depth, while reducing porosity.
- Repels water including oil and common shop chemicals.
- Designed for use in an environmental, wet grinding process.
- pH neutral and non-hazardous.
- Will not yellow, has natural appearance.
- Slightly darkens concrete.
- Requires no rinsing and disposal – will not gel on surface.
- Decreases black tire markings, greatly improving appearance of floor.
- Stands up to heavy abrasion and foot traffic while providing excellent slip resistance.
- A superior product for residential driveways, sidewalks and patios.

Shield & Enhance™

Green Umbrella Shield & Enhance™ is a concrete densifier that deeply penetrates and chemically reacts with concrete to create a dust-proof surface that is harder, denser and exceptionally resistant to the damaging effects of water and salt with up to 91% chloride prevention. Designed to be introduced into the substrate before the last resin cut.

COVERAGE: 400-600 sqft/gal

COVERAGE W/ GU GREENCUT: 600+ sqft/gal

VOLUME AVAILABLE: 5 gal pail



Chloride
Resistant



Oil
Resistant



Water
Repellent



Breathable



Tire Mark
Resistant



Darkens
Surface



Resists
Scaling

Features & Benefits

- Superior chloride intrusion prevention.
- Enhances the appearance of dyed or pigmented floors.
- Repels water, oil, and shop chemicals while it darkens and enhances the natural beauty of concrete, can be polished to semigloss.
- Requires no rinsing and disposal – will not gel on surface.
- Decreases black tire markings, greatly improving appearance of floor.
- Stands up to heavy abrasion and foot traffic while providing excellent slip resistance.
- Breathable surface
- Will not yellow
- Resistant to most deicers
- Prevents scaling of concrete

Tested for Scaling Resistance of Concrete Surfaces Exposed to Deicing Chemicals Under the Following Standards:

244 NCHRP-Chloride Ingress Testing ASTM C672-Standard Test Method

CONCRETE COLORANTS

NanoDye™

Green Umbrella NanoDye™ is a translucent dye that uses exceptionally fine molecules of color and deeply penetrates most concrete surfaces. Use NanoDye with acetone for a crisp and vibrant color definition. May also be used with water or added to Green Umbrella DryShield™.

COVERAGE: 200-400 sqft/gal

VOLUME AVAILABLE: 8oz, Bulk packaging also available

Curing Agent Options:



Add To
Acetone



Add To
Water



Add To
DryShield

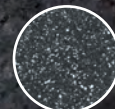


Low VOCs

Features & Benefits

- No odor, good for application where adjacent areas are occupied.
- Wide variety of color options.
- For polished and non-polished concrete
- VOC compliant
- Easy application
- Great for indoor applications.

**Colors shown are for representation only.
Color results cannot be guaranteed.
Actual colors may vary.*



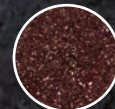
Coal



Butternut



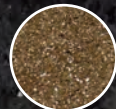
Cardinal



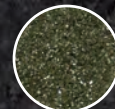
Cayenne



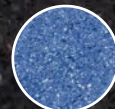
Cocoa Bean



Fawn



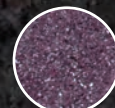
Gator Green



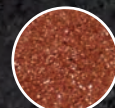
Jenna Blue



Meidling Blue



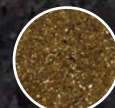
Merlot



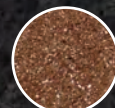
New Penny



Otter



Sandstone



Terra Bark

COLORS. SHIELDS. HARDENS.



ColorShield™

Green Umbrella ColorShield™ is a pigment-based concrete finish product that colors the floor as it penetrates. ColorShield provides UV-stable color and a glossy sheen that can be applied both outdoors and indoors. Can be used with or without polishing.

COVERAGE: 400-600 sqft/gal

VOLUME AVAILABLE: 2.5 gal, 5 gal pail



Abrasion
Resistant



UV
Resistant



Chemical
Resistant



LOW
VOCs

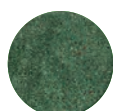
Features & Benefits

- Quick application, easy to change colors or repair if necessary.
- UV stable color – can be used both indoors and outdoors.
- No need for sealers, paints or epoxies that flake off.
- Increases hardness and density while reducing porosity.
- Not a stain - no harmful or toxic chemical exposure.
- Beautiful sheen with or without polishing.
- No need for concrete to be flat, ColorShield follows contoured surfaces.
- Stands up to heavy abrasion while providing excellent slip resistance and increased chemical resistance.

Stock Color Options* (Custom Colors for ColorShield are Also Available):



Caramel



Dark Jade



Dusk Blue



Earthenware



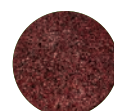
Golden Sands



Mahogany



Night Sky



Red Clay



Smokey Quartz



Custom

ColorFlash™

Green Umbrella ColorFlash™ is a VOC-compliant dye that is used with acetone. This translucent dye uses exceptionally fine molecules of color and deeply penetrates almost all concrete surfaces. ColorFlash™ is not UV-stable in all conditions.

COVERAGE: 400-600 sqft/gal

COVERAGE W/ GU GREENCUT: 600-800 sqft/gal

VOLUME AVAILABLE: 2.5 gal, 5 gal pail

Features & Benefits

- Reduces bleeding – Excellent for stencils and artwork.
- Rich color intensity with a wide variety of colors.
- Quick drying, easy application.
- For polished and non-polished concrete.
- VOC compliant – Great for indoors



Add to
Acetone



Ideal for
Stenciling



LOW
VOCs



Brick Red



Bronze



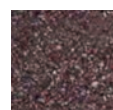
Charcoal



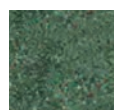
Copper



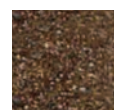
Dark Forest



Deep Amethyst



Deep Jade



Earthenware



Evening Sky



Garnet



Golden Sands



Granite



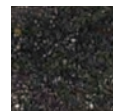
Gray



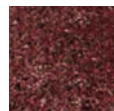
Iron Ore



Moss Green



Night Sky



Red Earth



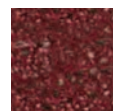
River Sand



Shale



Smokey Quartz



Sun Stone



Topaz



Tropical Bay

**Colors shown for NanoDye™, ColorFlash™, and ColorShield™ are for representation only. Color results cannot be guaranteed. Actual colors may vary.*



SURFACE TREATMENTS

EASY TO APPLY, QUICK TO CURE
AND SIMPLE TO MAINTAIN

Green Umbrella™ Microfilm products are environmentally-friendly surface treatments that create an ultra-hard, watertight surface layer that reduces maintenance frequency while significantly extending the life of polished concrete and masonry.

Microfilm is composed of a rapidly curing low-odor formula which means less downtime for your facility. Once treated, the surface requires no waxing – simply auto-scrub or damp mop to clean, and propane burnish to restore the gloss as needed.





RTU Microfilm

Green Umbrella RTU (Ready To Use) Microfilm™ is an environmentally friendly hybrid surface treatment that creates a durable micro-thin layer to seal polished concrete floors. Properly applied, RTU Microfilm forms a breathable, dense protective layer. This layer provides a high-gloss finish that is highly resistant to aviation oils, stands up to acid and chemical exposure, and is not prone to whitening, peeling or flaking.

COVERAGE: Up to 700 sqft/gal, average of 400 sqft/gal

VOLUME AVAILABLE: 5 gal pail, 55 gal drum



Oil
Resistant



Abrasion
Resistant



Acid
Resistant



Chemical
Resistant



Anti-Mildew
& Fungi



UV
Resistant



USDA/FDA
Approved

Features & Benefits

- Ready to use, no dilution
- Highly resistant to aviation oils for up to 48 hours
(when used as a component of of Green Umbrella MaxDefense™ System)
- Stands up to heavy abrasion and high foot traffic
- Resists acid (organic/inorganic) & chemical exposure
- Does not support mildew or fungi growth
- Forms protective shield against UV radiation, resulting in extended dye/color retention
- Not prone to whitening; will not peel or flake
- USDA/FDA approved for incidental food contact
- Very low maintenance

Outdoor Microfilm

Green Umbrella Outdoor Microfilm™ is perfect for broom finished, porous, and consolidated concrete surfaces, improving slip and abrasion resistance. When properly applied, Green Umbrella Outdoor Microfilm forms a breathable, dense, protective layer that is highly resistant to aviation oils, stands up to acid and chemical exposure, and is not prone to flaking with a beautiful gloss finish.

COVERAGE: Up to 700 sqft/gal, average of 400 sqft/gal

VOLUME AVAILABLE: 5 gal pail, 55 gal drum



Oil
Resistant



Abrasion
Resistant



Acid
Resistant



Chemical
Resistant



Ice/Snow
Resistant



Anti-Mildew
& Fungi



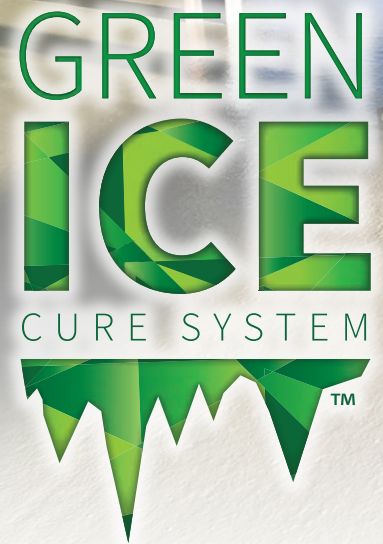
UV
Resistant

Features & Benefits

- Highly resistant to aviation oils for up to 48 Hours
- Stands up to heavy abrasion and high foot traffic
- Resists acid (organic/inorganic) and chemical exposure
- Does not support mildew or fungi growth
- Forms a protective shield against UV radiation, resulting in extended dye/color retention
- Not prone to whitening, peeling or flaking
- Very low maintenance
- Withstands extreme temperature, ice and snow

GREEN ICE CURE SYSTEM

Provides a cure and finish for concrete which stops moisture related deterioration issues and other moisture problems. This two-part, patent-protected concrete curing solution is designed to cure concrete faster, increase abrasion resistance and add a high-gloss finish!



1



PLACE, SPRAY & TROWEL

IceStart™ is the curing agent that is applied at the time of placement. Simply spray IceStart™ with a low-pressure pump sprayer or apply through the sprayer of a power trowel. Apply in three applications.

2



APPLY ICESTOP™ FIXATIVE

IceStop™ is the fixative applied as soon as the power trowels are finished. Apply with a sprayer and gently scrub after the surface is completely dry. Now you have a moisture mitigated surface that accepts any flooring.

3



ENJOY YOUR PREMIUM CONCRETE

The GreenIce Cure System™ cures the same day it's placed – saving time and labor while stopping moisture deterioration issues. This results in a sustainable concrete finish superior to traditional methods.



IceStart Curing Agent

A unique 100% reactive water based curing agent used to ensure that the concrete cures properly. IceStart is applied during the bull float, panning and combi blade troweling process. It eases finishing by reducing trowel drag, creates more cream, reduces sub-surface micro cracks, cat faces and shrinkage cracking. It slows down set times in hot weather and does not extend set times in cold weather. Allows only a 3% water loss which helps control volume cracking and curling.

COVERAGE: 1200 sqft/gal

VOLUME AVAILABLE: 5 gal pail, 55 gal barrel, 275 gal tote

IceStop Fixative

Spray IceStop on the surface as the second part of the IceCure system. Working as a fixative, IceStop is sprayed over the surface once trowels are finished. Additionally, IceStop protects the slab while curing and continues to protect during construction. With specially designed properties, this product will densify and add abrasion resistance while repelling water. The benefit is an increase in the strength and longevity of the slab.

COVERAGE: 400-600 sqft/gal

VOLUME AVAILABLE: 5 gal pail, 55 gal barrel, 275 gal tote

Features & Benefits

- Increases abrasion resistance up to 400%
- Stretches control joints
- Keeps the water in the slab
- Slows down set time in hot weather
- Densifies the slab
- Dust-proofs the slab
- Produces flatter floors
- Stops moisture migration
- Saves time and labor
- Reduces costs
- Reduces micro cracks
- Sustainable concrete
- Closes capillaries
- Best FF results
- Supports all types of flooring
- No more losing the slab
- Best looking finish



***Floor is cured and finished
the same day – Start working
on it the next day!***

OPTIONAL PRODUCTS

Fiberlite Reinforcement Fibers

Green Umbrella Fiberlite™ is a uniquely designed concrete fiber that can be used as a powerful reinforcement. Fiberlite can be used as an alternative, or combined with wire mesh to reduce cracking due to stress on the slab. When used in a polished concrete application, the fibers are transparent in the mix and can be dyed and polished.

COVERAGE: 1 bag/cu. yd. for general applications

For other applications, consult with your Green Umbrella sales representative for recommended dosages.

IceCap Surface Treatment

After the floor has been treated with IceStart and IceStop, IceCap may then be applied to achieve the same brilliance as a traditional ground, honed and polished floor. In addition to the unparalleled high-gloss finish, IceCap adds additional UV protection and abrasion resistance to the floor while producing gloss meter readings between 50 and 70 for a 30% increase in reflectivity.

COVERAGE: 1000 sqft/gal

VOLUME AVAILABLE: 5 gal pail, 55 gal barrel, 275 gal tote

ABRASIVES, EQUIPMENT AND ACCESSORIES

To compliment our unique treatments, Green Umbrella™ offers a complete line of tooling gear, machinery and equipment to address every stage of your concrete project from start to finish.

With resources for both commercial and residential applications, contact your Green Umbrella sales representative for more information on the equipment that is right for your application.





GRIND



Metal

Available in a range from **6 through 400 grit** metals. A consistent metal matrix throughout the range of tooling ensures a consistent cut.

HONE



Honing Fusion

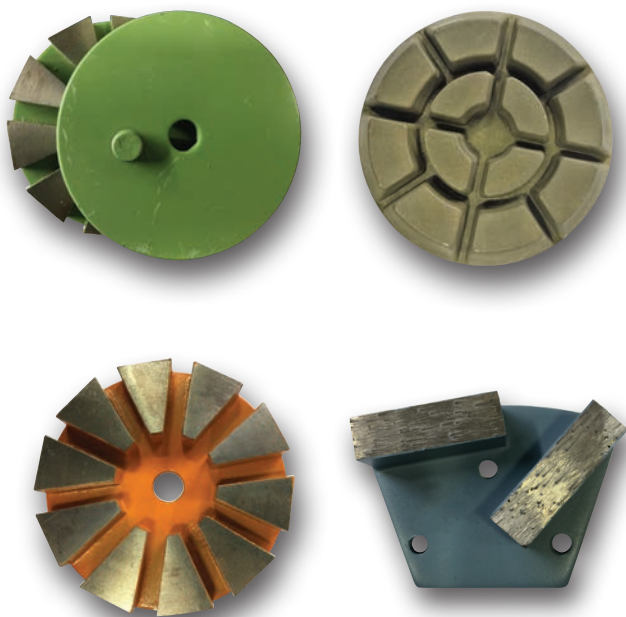
Available in a range from **50 through 200 grit**. Use with water to create a honed finish.

POLISH



Polishing Fusion

Available from **400 through 3,000 grit**. Leave your client with a beautiful refined matte or high-gloss reflection.



Green Umbrella Big Stock

Coating Removal Abrasives

Available in a range from 16 through 50 grit, these coating removal diamonds remove glue, epoxy and self-leveler from concrete floors. Big Stock abrasives may also be used in applications where a large aggregate reveal is desired.



Green Umbrella Green Grinder

an environmentally friendly concrete grinder that efficiently grinds, hones and polishes concrete floors. Designed specifically for wet grinding and is fitted with an 11 gallon water tank.

PRODUCTION: 1,800 - 2,100 sqft/hour

ENGINE: Kawasaki 17HP

ENGINE SPEED: 3,200 rpm

DRUM SPEED: 1,410 rpm

HEAD SPEED: 810 rpm

GRINDING PRESSURE: 785 lbs

GRINDING DIAMETER: 30 in

SHIPPING WEIGHT: 1,425 lbs



Features & Benefits

- 22 HP propane engine
- Three 13" counter-rotating heads
- Three quick change diamond heads
- Adjustable handle
- Eliminates ambient air quality issues
- Meets maintenance LEED requirements
- Increased productivity over electric grinders
- No need for two machines – a true grinder and polisher
- GREENGEAR™ Gearbox
- EPA & CARB Certified

Green Umbrella Green Edger

Efficiently grind, hone and polish concrete floors to wall edges and around hard to grind obstacles. The head pressure created allows these true concrete edger machines to produce a similar finish along walls and obstacles comparable to a full size concrete grinder. The maneuverability and rotating head assembly allows for proper processing along walls and in hard to reach areas.

PRODUCTION: 300 - 400 linear ft/hour

ENGINE: Kawasaki 17HP

HEAD PRESSURE: Minimum of 170 lbs

GRINDING PATH: 13" or 19" with low-profile

HEAD SPEED: 640 rpm

ENGINE SPEED: 3,200 rpm

DIMENSIONS: 52"L x 38"W x 56"H



Features & Benefits

- Finishes floors within ¼ inch of walls or underneath kick plates
- No cords
- Minimal impact on ambient air quality
- Water tank
- Quick change abrasives
- EPA & CARB Certified



GreenGloss 33k Burnisher

GreenGloss 33K™ powered with EPA & CARB certified, low emission engines meets LEED guidelines for green cleaning. Comes standard with an emissions monitor that automatically shuts the engine down if CO emissions rise; a 3-way catalytic muffler that lowers CO, HC and NOx emissions; and dust containment. Run time is 5 to 6 hours per propane cylinder.

PRODUCTION: 33 thousand ft/hour

ENGINE SPEED: 3,600 rpm

PAD SPEED: 1,800 rpm

PAD SIZE: 27" pads

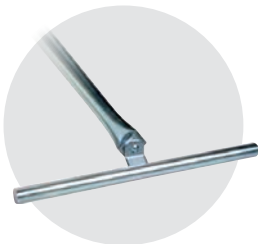
WEIGHT: 350 lbs

Also available in 25k and 28k models



Features & Benefits

- Industry's greatest head pressure
- Propane engine
- Special pad driver designed for concrete
- EPA/CARB Certified
- Meets maintenance LEED requirements
- Adjustable ergonomic handle
- Adjustable wheel brackets
- Battery start



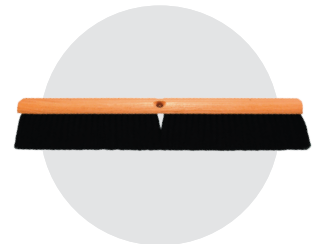
T-Bar Applicator



18" Applicator Pad



Pump Sprayer



Push Brooms

Cover Guard™

Temporarily protects your freshly processed floor during the construction process. Resistant to most chemicals, paints, water and flames. Extremely durable and reusable.

COVERAGE: 300 sqft

THICKNESSES AVAILABLE: 10 mil, 25 mil, 40 mil



BuilderBoard™

Designed with cost and efficiency in mind, BuilderBoard provides non-staining temporary floor protection ideal for treated surfaces. BuilderBoard utilizes Flex-Fiber™ technology allowing for a durable, yet breathable layer.

COVERAGE: 300 sqft



MAINTENANCE PRODUCTS

It is important to properly maintain your polished concrete floors with a pH neutral cleaner to avoid damage and discoloration. Green Umbrella™ offers enzyme-based cleaners and degreasers that won't damage your floors and will keep them looking new.

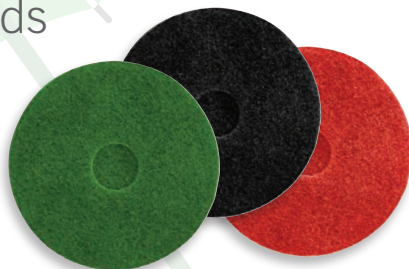
Water Broom

Specially designed to remove dirt and small debris from the concrete surface quickly without spreading dust around. Can be effectively used to prep the concrete for processing or for routine maintenance.



Scrub & Burnishing Pads

We offer a variety of pads for cleaning and burnishing your floors. Consult with your Green Umbrella sales rep to determine the right pad for your flooring.





Green Clean & Maintain

Green Umbrella™ Green Clean & Maintain is designed to heal and maintain polished concrete effectively. The neutral pH of Green Umbrella Green Clean is ideal for removing dirt, without leaving film or residue. The rinse free formula safely lifts away dirt, while maintaining the brilliance and shine of your polished concrete floors. Other cleaning products may damage the floor, Green Umbrella Concrete Green Clean, on the other hand, is specially formulated for polished concrete.

COVERAGE: 400-700 sqft/gal

VOLUME AVAILABLE: 5 gal pail, 55 gal drum



pH Neutral



Cleans &
Maintains



Heals &
Rejuvenates

Features & Benefits

- pH Neutral and non-hazardous
- Rejuvenates surface layer as it cleans
- Removes contaminants
- Concentrated no-rinse formula
- Compounded concrete hardening chemistry
- No phosphates, sodium hydroxides, or butyl's
- Cost-effective and non-damaging
- Extends floor life
- Reduces maintenance cost
- Non-toxic/bio-degradable

Green Clean & Degreaser

An enzyme-based cleaner and degreaser that will outperform caustic chemicals and the natural oils found in many citrus cleaners. Ideal for removing dirt, without leaving film or residue, the rinse free formula safely lifts away dirt and grease, while maintaining the brilliance and shine of your polished concrete floors.

COVERAGE: 400-700 sqft/gal

VOLUME AVAILABLE: 5 gal pail, 55 gal drum



pH Neutral



Cleans &
Degreases

Features & Benefits

- Powerful degreaser
- pH Neutral and non-hazardous
- Ideal for applications such as car dealerships
- Concentrated, no-rinse formula
- No phosphates, sodium hydroxides or butyls
- Compounded concrete hardening chemistry
- Cost-effective & non-damaging
- Extends floor life



GLOSSARY TERMS

RELATED TO CONCRETE POLISHING

ABRASION RESISTANCE: Ability of a surface to resist being worn away by rubbing and friction.

ABRASIVE PAD: A circular pad, resembling a typical floor maintenance burnishing pad that has the capability of refining the concrete surface on a microscopic level that may or may not contain industrial grade diamonds.

BONDED ABRASIVE: Abrasive medium that is held within a bonding that erodes away to expose new abrasive medium as it is used.

BONDED ABRASIVE: Abrasive medium that is held within a bonding that erodes away to expose new abrasive medium as it is used.

BONDED ABRASIVE POLISHED CONCRETE: The multi-step operation of mechanically grinding, honing, and polishing a concrete floor surface with bonded abrasives to cut a concrete floor surface and to refine each cut to the maximum potential to achieve a specified level of CPC defined finished gloss.

BURNISHED POLISHED CONCRETE: The multi-step operation of mechanical friction-rubbing a concrete floor surface with or without waxes or resins to achieve a specified level of CPC defined finished gloss. This operation yields a less durable finish and requires more maintenance than bonded abrasive polished concrete.

CONCRETE SLURRY: A mixture of water and any finely divided insoluble material, such as portland cement, slag, or clay in suspension.

CONCRETE SUBSTRATE: The ground below a slab, existing plain concrete paving, or a structural slab designed to carry loads.

CURING COMPOUNDS: A liquid applied to the surface of newly placed concrete that retards the evaporation of water and, if pigmented, reflects sunlight.

CUT: The removal of a horizontal layer of a concrete surface with the use of mechanical equipment and optional liquid enhancers to expedite the process.

DENSIFIER: A combination of silicate and water-based compounds that react in the surface of the concrete to produce additional calcium silicate hydrate (CSH); silicates are combined with carrier compounds, most commonly sodium-, potassium-, or lithium-based to aid the process. Some products also contain silicate.

DISTINCTION OF IMAGE (DOI): A measure of how clearly a reflective image will appear in a reflective surface.

DYE: A colorant for concrete that is applied and penetrates into the concrete while it is in solution and results in a stained appearance. Concrete dyes do not produce color via chemical reaction; they are usually a synthetic organic compound and can degrade when exposed to light or alkalinity.

EDGE DETAILING: The act of blending or installing a contrasting border along the perimeter of the room(s) using a liquid coating.

EDGE GRINDING: Processing or grinding a floor to the vertical wall or edge in a way that mimics the aggregate exposure of the primary floor field.

EDGE TREATMENT: A defined border of a clear or pigmented coating that is applied around the perimeter of a room.

EFFLORESCENCE: A generally white deposit formed when water-soluble compounds emerge in solution from concrete substrates and precipitate by reaction such as carbonation or crystallize by evaporation.

FINAL FILM THICKNESS: The depth of the film when wet (wet film thickness) and the final depth when dry (dry film thickness).

FILM FORMING COATING: A film forming material which is designed to be a surface coating on concrete with a minimal film thickness of greater than 0.05 mils. which meets the OSHA requirements for slip resistance as tested by ASTM D2047 and stain resistance of ASTM D1308.

FINISHED GLOSS: Processing a concrete floor surface to achieve a specified level of finished gloss prior to application of any protective treatment; Flat [ground], satin [honed], polished, and highly polished are measured in reflective clarity (DOI), and reflective sheen (specular gloss). Finished Gloss is classified as levels 1, 2, 3 and 4 with varying degrees of reflective clarity, and sheen.

GLOSS MEASUREMENT: A determination of specular gloss that could also incorporate distinction of image, haze and Rspec.

GLOSS METER: A device that is capable of measuring specular gloss at 20, 60, or 80 degrees.

Source: <https://www.ascconline.org/concrete-polishing-council/glossary>



GRINDING STAGE: The steps of the polishing process that removes the concrete uniformly in preparation for the honing stage. This stage is typically the beginning for Class C and D specified floors and may meet the requirements for a level 1 specified gloss. This stage consists of any bonded abrasive that is 100 grit or lower.

HEAD PRESSURE: Determined by the combination of machine weight and number of grinding heads touching the floor. Knowing the head pressure of a grinding machine aids in choosing the correct tooling.

HONING STAGE: The steps of the polishing process that refine the concrete in preparation for the polishing stage. This stage can sometimes be the beginning steps for Class B specified floors and may meet the requirements for a level 2 specified gloss. This stage consists of diamond tooling within the 100-400 grit range.

HYBRID POLISHED CONCRETE: A multi-step operation, using either standard grinding / polishing equipment, lightweight equipment, high speed burnishing equipment, or a combination of, to combine the mechanical grinding, honing, and polishing process with the friction rubbing process by utilizing bonded abrasives, abrasive pads, or a combination of, to achieve the specified level of CPC defined finished gloss.

LIQUID DENSIFIER: An Aqueous solution of Silicon Dioxide dissolved in one of the following Hydroxides that penetrates into the concrete surface and reacts with the Calcium Hydroxide to provide a permanent chemical reaction that hardens and densifies the wear surface of the cementitious portion of the concrete.

METAL BOND TOOLING: Diamond tooling that contains industrial grade diamonds with a metallic bonded matrix that is attached to rotating heads to refine the concrete substrate. These tools are available in levels of soft, medium, and hard metallic matrices that are matched with contrasting concrete substrates (i.e. hard matrix/soft concrete, medium matrix/medium concrete, soft matrix/hard concrete) and are typically used in the grinding and early honing stages of the polishing process.

PIGMENTED MICRO STAINS: Fine pigment particles suspended in water- based silicate solution that penetrates concrete and reacts with calcium hydroxide to lock in color particles

POLISHED CONCRETE: The act of changing a concrete floor surface, with or without aggregate exposure, to achieve a specified level of gloss using one of the listed classifications; Bonded Abrasive Polished Concrete, Burnished Polished Concrete, or Hybrid Polished Concrete.

POLISHING STAGE: The final stages of the polishing process that refine the concrete to the specified finished gloss level. This stage consists of diamond tooling that is 800 grit or higher.

REFLECTIVE CLARITY: The Distinction of Image value of the degree of sharpness and crispness of the reflection of overhead objects when measured by a device in accordance to ASTM D5767.

REFLECTIVE SHEEN: The specular gloss value of the degree of gloss reflected from a surface, at specified angles of illumination, when measured by a device in accordance to ASTM D523-08.

RESIN BOND TOOLING: Diamond tooling that contains industrial grade diamonds within a resinous bonded matrix (poly-phenolic, ester-phenolic, thermoplastic-phenolic) that is attached to rotating heads to refine the concrete substrate. Resin bond tooling is typically used for the later honing and polishing stages.

RSPEC: The peak gloss value over a very narrow angle.

SEALER - SEMI IMPREGNATING STAIN PROTECTION: A film forming material which will penetrate into the polished and densified concrete leaving a protective surface film of less than 0.5 mils which meets the OSHA requirements for slip resistance as tested by ASTM D 20471, and stain resistance of ASTM D 13082.

SEALER - IMPREGNATING STAIN PROTECTION: Non film forming stain and food resistant penetrating sealer designed to be applied to densified and polished concrete. Material must meet the requirements for slip resistance as tested by ANSI A137.1, and Stain resistance of ASTM D 13082.

SPECULAR GLOSS: A single measurement of gloss by shining a known amount of light at a surface within a specified angle of illumination and quantifying the reflectance. Specified angles of illumination are 20 degrees for gloss ranges higher than 70 GU, 60 degrees for gloss ranges between 10-70 GU, and 85 Degrees for gloss ranges below 10 GU.

STAIN: The deliberate action of applying a colored liquid material to change the appearance of the concrete surface. The products used can be acid stains, pigmented water based stains, or penetrating dyes.

STAIN RESISTANT: As defined in ASTM D 1308 - Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes.

STATIC COEFFICIENT OF FRICTION (SCOF): The ratio of the horizontal component of force applied to a body that just overcomes the resistance to slipping to the vertical component of the weight of the object or force applied.

SURFACE COATED CONCRETE: Surface coated concrete does not conform to the definition of polished concrete per the CPC. It is the operation of applying a film forming coating to a concrete floor surface to achieve a specified level of finished gloss. Durability depends on the quality of the chemical coating used, the amount of traffic across the floor, and floor maintenance.

TRIBOMETER: An instrument or device specifically designed to measure the available level of traction upon a floor or walkway surface.

WET GRINDING: Mechanically grinding the surface using water as a cooling agent for the diamond tooling. The water acts like a lubricant and reduces friction, usually extending the life of the tooling. Wet grinding also aids in keeping silica dust particles from becoming airborne.

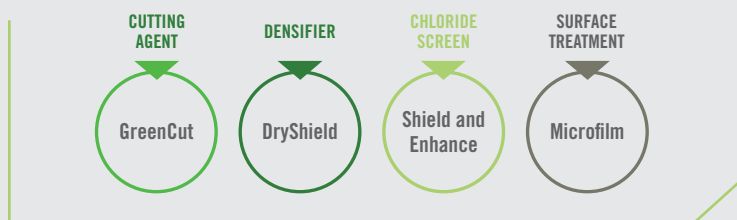
*Cited From the American Society of Concrete Contractors:
<https://www.ascconline.org/concrete-polishing-council/glossary>*

Treatments that work together...



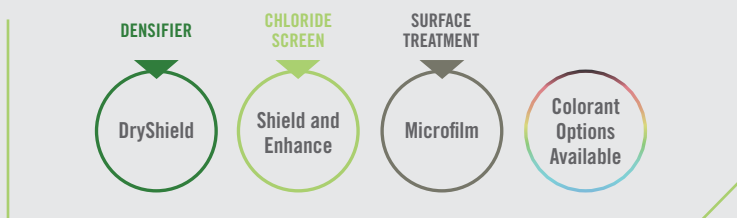
HybridCut System

A superior system that utilizes the power of GreenCut, coupled with the increased coverage rates of Green Umbrella products to produce the most resilient polished floors with the highest gloss and clarity.



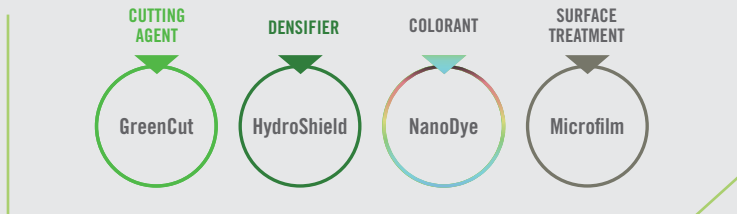
MaxDefense System

Provides a deep substrate hardener with water repellence and salt resistance. The MaxDefense system can be configured with a variety of densifying/colorant component options to achieve the desired end-result.



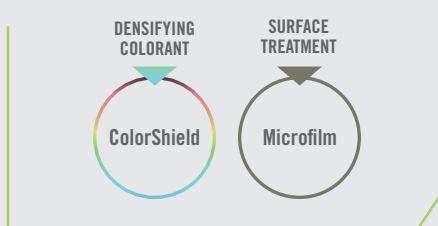
NanoCut System

Ideal for producing a polished floor in which a variety of colors is desired. NanoCut combines the benefits of the HybridCut system with Green Umbrella NanoDye to produce an even color pallet.



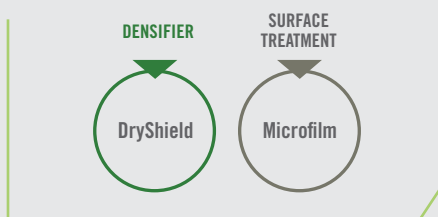
ColorFusion System

A fusion of a UV stable color hardener (ColorShield) with Green Umbrella Microfilm for increased durability. ColorFusion can also be used in restoration projects where discoloration from moisture is a concern.



BaseDefense System

Provides a basic level of protection that combines Green Umbrella DryShield – an amorphous pH-neutral densifier and RTU Microfilm – a surface treatment that resists etching and common contaminants.



Green Umbrella Treatment Systems are versatile product packages that work together to achieve a variety of end-results. Talk to a Green Umbrella sales representative to determine the right product combination to best suit your individual needs.

Versatile