



PRODUCT NAME

Ultra HTS

MANUFACTURER

Ultra Durable Technologies
355 6th Ave N
Waite Park, MN 56387
Phone: 320-258-2266
Toll-Free: 800-722-2998
Website: www.ultradtd.com

PRODUCT DESCRIPTION

Ultra HTS is a high-solids, 100% aliphatic urethane topcoat formulated with extreme chemical resistance and durability. Ultra HTS protects floors from harsh chemicals and vehicular traffic such as forklifts. Contractors and facility managers appreciate that Ultra HTS has a very low odor, ultra-low VOCs (just 2 grams per liter), and is easy to apply.

Ultra HTS Grind & Seal – these thin, industrial (“Thin-dustrial”) systems are simple, cost-effective, and sustainable due to the minimal product usage and life cycle analyses. One, thin coat of Ultra HTS applied over a lightly primed surface provides extreme durability and chemical protection without any buffing or frequent recoating.

Clear Prime & Seal systems are excellent alternatives to diamond grinding and polishing because of their ability to enhance the beauty of raw concrete, retain the natural appearance, and protect unlike anything else.

Color Prime & Seal systems utilize proprietary liquid pigment packs that yield solid-colored industrial floors with built-in abrasion and chemical resistance. Finally, Ultra HTS protects **UDT Chip, Quartz, and Metallic** systems with a uniform, high-traction, semi-gloss sheen.

PROVEN INDUSTRIES

Industrial: Manufacturing, Production, Warehousing
Transit: Airports, Hangars, Bus/Train Stations
Commercial: Retail, Restaurants, Showrooms
Entertainment: Arenas, Convention Centers, Gaming
Residential: Garages, Decorative, Covered Patios
Government: Military Bases, Stations, Prisons

UNIQUE ADVANTAGES

- Clear or Pigmented with UltraColor liquid pigments
- Excellent scratch and abrasion resistance
- Low Odor and Low VOC (50-state compliant)
- User-friendly and long working time
- Non-yellowing, UV stable 100% aliphatic urethane
- Extreme chemical, tire, and stain resistance
- NO diamond pads and NO burnishing to maintain

PACKAGING

1.5 Gallon Kit:

Part A (2 gallon bucket) + Part B (1 qt can) + Part C (1 qt jar)
Optional – UltraColor Liquid Pigment
Optional – UDT Aggregate #120: 1 pt

Demo Kit:

Part A (1 qt can) + Part B (½ pt can) + Part C (½ pt bag)
Optional – UltraColor HTS Pigment: measure 2 fl oz
Optional – UDT Aggregate #120: measure 1.5 fl oz
Optional – UDT Aggregate #60: broadcast 1.5 fl oz

COVERAGE RATES

1.5 Gallon Kit: 650-750 ft²

Demo Kit: 50-75 ft²

(do not exceed 4 mils)

SHELF LIFE

2 years (unopened and stored at 59-77°F / 15-25°C)

CHEMICAL RESISTANCE

	1 HR	24 HR	7 Day
Quaternary Cleaner	1	1	1
Bleach	1	1	1
Vinegar	1	1	1
Mustard	1	1	1
30% Hydrochloric Acid (Muriatic)	1	2G	2G
37% Sulfuric Acid (Battery Acid)	1	2G	3G
Xylene	1	1	1
Methylene Chloride	3	4	4
Methyl Ethyl Ketone	1	1	1
Betadine Surgical Prep Solution	1	1	1
Brake Fluid	1	1	1
SAE 30 Motor Oil	1	1	1
Skydrol 500 B	1	1	1
Car Tires @ 130°F	1	1	1

1=No Effect, 2=Mild, 3=Moderate, 4=Severe, G=Gloss Reduction, S=Stain

TECHNICAL DATA

Solids content	91%	ASTM D2369
Solids content with Part C	94%	ASTM D2369
Odor	Mild	
VOC Content	2 g/l	ASTM D7768-12
Gloss (no part C)	85-88	ASTM D523
Gloss (with part C)	50-60	ASTM D523
Mixed viscosity	350-450 cps	ASTM 2196
Pot life (once mixed)	75 min	
Working time – Clear or Pigmented	40 min	
Re-coat window	24 hours	
Dry times @ 70°F, 50% RH		
- Dust/Tack free	6 hours	
- Light Foot Traffic	8 hours	
- Heavy Foot Traffic	16 hours	
- Wheeled Traffic	72 hours	
- Full Cure	7 days	
Taber Abrasion (CS-17 wheel, 1000 cycles)	17 mg loss	ASTM D4060
Pencil Hardness	5H	ASTM D3363
Pencil Hardness with Part C	6H	ASTM D3363
Tensile Strength with Part C	1140	ASTM D2370
Elongation with Part C	16%	ASTM D2370
Wet DCOF	0.45	ANSI B101.3
Wet DCOF with Part C	0.55	ANSI B101.3
Wet DCOF with Part C & #120	0.61	ANSI B101.3

ENVIRONMENTAL TESTING

Moisture Content: All interior concrete floors not poured over an effective moisture vapor retarder are subject to possible moisture vapor transmission that may lead to blistering and failure of the coating system. It is the coating applicator's responsibility to conduct calcium chloride testing (ASTM F1869) or plastic sheet testing (ASTM D4263) and relative humidity probe testing (ASTM F2170) to determine if excessive levels of moisture vapor emissions are present before applying any coatings. Slabs on grade must have a moisture vapor emission rate of less than 3 pounds / 1,000 ft² / 24 hours when measured by calcium chloride test and less than 75% relative humidity when measured using in situ probes. Test the air temperature, relative humidity, and floor temperature in the area to be finished using a Psychrometer and Infrared Thermometer.

Air Temperature: Ultra HTS must not be applied when the air temperature is above 90°F or below 55°F.

Relative Humidity (RH): Ultra HTS dry time is lengthened (slower) in low humidity and/or cool temperatures and shortened (faster) in high humidity and/or warmer environments. Ultra HTS must not be applied when the RH is above 80%. RH levels below 20% may dramatically lengthen dry times.

Floor Temperature and Dew Point: Ultra HTS must not be applied when the substrate (floor) temperature is less than 5° above the dew point. Monitoring the substrate temperature, indoor temperature, and RH, and utilizing fans and/or dehumidifiers as needed will help correct or prevent existing or possible dew point conditions until the installation is complete.

FLOOR PREPARATION

Concrete must be lightly shot-blasted or diamond ground with 30- to 80-grit metal bond diamonds to achieve a minimum Concrete Surface Profile (CSP) of 2 to 3. Concrete must be cured before coating (poured and aged at a material temperature of at least 75°F for at least 30 days), structurally sound, and free of contaminants such as waxes, loose paint, dust, dirt, grime, oils, release agents, curing compounds, any surface laitance (a layer of weak and nondurable material), or others. If prepared concrete is suspected to be contaminated with any material(s), test for its presence by spraying a thin coat of water onto the concrete. If water beads on the surface, contamination is likely present and the concrete should be scrubbed with a degreaser or mild detergent, rinsed with clean water, and allowed to dry thoroughly before coating. Ensure there is no amine blush. Scrub to remove if present.

Priming:

UDT recommends priming concrete before coating with Ultra HTS. Ultra HTS should be applied over a surface that has been primed/coated with MC Epoxy, UltraSpartic, or MV Epoxy Primer. See appropriate product TDS or SOP for preparation and environmental testing prior to proceeding with the primer coat. If no primer is applied, Ultra HTS may soak completely into the concrete, thus requiring an additional application of Ultra HTS.

If pigmentation with a light color, or if a "hangar" type of system is being installed, a body coat is recommended using MC-UV Epoxy or UltraSpartic and UltraColor E/P Pigments. If defects are present in the primer (debris, fisheyes, bubbles, roller lint), lightly sand the surface with a 100- to 150-grit screen and clean the floor. It is recommended to apply the body coat at 5 to 10 mils.

If defects are present in the body coat once it has dried (debris, fisheyes, bubbles, roller lint), lightly sand again with a 100- to 150-grit screen and clean the floor. Patch / repair any additional defects before applying the Ultra HTS topcoat.

If recoating an existing coat of Ultra HTS, flood mop the coated floor with clean water. A small amount of neutral cleaner may be added to the water for heavily soiled areas. While wet, slowly scrub the floor with a slow-speed scrubber or roto and 60-grit sand screens or a recommended 50-grit Polymer Tool. Move at a rate of no more than 1,000 ft² per hour, flipping and replacing screens frequently as they will wear down rapidly. Squeegee and wet-vacuum slurry. Flood mop the floor again with plain water and proceed to scrub the floor with a maroon conditioning pad under a separate clean pad at a rate of 1,000 ft² per hour. Flip maroon pads at least every 200 ft² and discard after 400 ft².

MIXING INSTRUCTIONS

Ensure that all components are at room temperature (59-77°F, 15-25°C) prior to mixing. Never mix partials. Mix the entire kit at one time. Wear gloves and safety glasses when mixing.

1.5 Gallon Kit

- 1) Open Part A and mix for 30 seconds.
- 2) Pour Part A into a clean mixing bucket (2-gallon or larger).
- 3) If pigmenting: Add UltraColor HTS pigment and mix for 1 minute or until uniform in color.
- 4) Add 1 quart Part B to Part A.
- 5) Slowly add Part C while mixing for 3 minutes. (For additional traction, add Aggregate #120 and Part C)

Demo Kit

- 1) Open Part A and mix for 30 seconds.
- 2) If pigmenting: Add 2 oz. UltraColor HTS pigment and mix for 1 minute or until uniform in color.
- 3) Add Part B to Part A.
- 4) Slowly add Part C while mixing for 3 minutes. (For additional traction, add 1.5 oz. Aggregate #120 and Part C)

ULTRACOLOR HTS PIGMENTS

UltraColor HTS pigments are the only compatible pigments acceptable for use with Ultra HTS. For additional color options, see UltraColor E/P Pigments that are recommended for use with MC Epoxy and UltraSpartic 85 and 100 primer and body coats.

Note: Not all colors will achieve 100% hide or opacity in one coat.



When white or other light colors are desired, the opacity should be accomplished in the primer or body coats prior to applying Ultra HTS. Contact your UDT Representative for additional information.

Solid-colored systems generally highlight imperfections (such as uneven concrete and residual debris) more than clear systems. To achieve a very smooth solid-color system that minimizes inconsistencies while providing full "hide", UDT recommends the following steps: apply a thin coat of primer; wet screen the floor; apply the body coat; patch holes and imperfections as needed with UDT Epoxy Patch Additive; wet screen the floor again and allow it to dry; apply Ultra HTS topcoat.

APPLICATION INSTRUCTIONS

Application video: <https://ultradur.com/udt-videos-concrete/>

- Attach high-quality 3/8" nap rollers onto frames.
- Use an 18" plastic (non-metal) frame for pigmented HTS.
- De-lint rollers with tape.
- Pour mixed product into a lined rolling pan.
- Dip a 6.5" by 3/8" nap woven edge roller and proceed to roll a thin coat along walls, ledges, or stairs.
- Use a paintbrush for hard-to-reach areas and follow up with rollers.
- Dip and load the 18" by 3/8" nap woven roller into tray.
- First roll from side to side (approximately 8 feet wide).
- Roll a "W" pattern forward and backward (approx. 4 ft deep).

- Squeeze excess product and "back-roll" the entire floor by gradually lifting (feathering) when overlapping into previously rolled areas to remove any roller or drip marks.
- Spiked shoes are recommended when back-rolling.
- Complete back-rolling of clear Ultra HTS within 40 minutes of initial application.
- When dipping the roller into the pan, remix the Ultra HTS in the tray to minimize the settling of Part C / Aggregate #120.
- Drill mix any coating remaining in the bucket before pouring.
- Keep a damp rag or paper towel handy to wipe Ultra HTS that may get on walls or permanent fixtures.
- Film thicknesses greater than 4 mils may bubble.
- (Optional) Broadcast UDT Aggregate #60 by hand or using a hopper and air compressor at an approximate rate of 16 fl. oz. per 650 ft² (1.5 Gallon Kit).

SLIP RESISTANCE

UDT recommends the use of traction additives in all coatings or flooring systems that may be exposed to wet, oily or greasy conditions. It is the contractor's and end users' responsibility to select and provide a flooring system that meets current safety standards. UDT makes no claims of longevity of SCOF or DCOF results. UDT and any distributors or representatives will not be responsible for injury incurred in a slip and fall accident.

MAINTENANCE INSTRUCTIONS

Daily Cleaning

Dust mop or sweep your floor daily to remove loose dirt. Use a damp microfiber mop as needed. A string mop may be used if microfiber mops are not available. Wet the mop head with water and wring mop out thoroughly. Use a "figure eight" motion to clean floor. Rinse and wring mop pad frequently and change the water as it becomes cloudy/ dirty. A light dilution of neutral pH cleaners may be used. Add citric acid to water to aid in the removal of salt residue. Overuse of cleaning products, detergents or dirty water may leave a residual film on the floor. Rinse with plain hot water to remove any film or haze. Use a dry towel or microfiber to help remove any film or residual water marks.

Caution: Floors can be slippery when wet. Use extreme caution when walking or working on a wet floor.

Auto / Machine Scrubbing

Wet auto scrubbing or machine scrubbing are suggested on an as-needed basis. Use UDT Microfiber Scrub Pads or standard white or red pads. Use of any other pads will void any performance guarantee or warranty. Launder Microfiber Scrub Pads periodically as they will become dirty and will no longer clean effectively. Never dry scrub or buff floors coated with Ultra HTS. Address areas of wear and affix floor protectors to any furniture or fixture that may prematurely damage the floor. (See UDT's full line of floor protectors)

WARRANTY

Ultra Durable Technologies, Inc.'s products are warrantied to be of uniform quality within manufacturing tolerances. Since no control is exercised over product use, no warranty, expressed or implied, is made to the effects of such use. The seller and manufacturer's obligations under this warranty shall be limited to refunding the purchase price of that portion of the material proven to be defective. Contact your distributor or representative for more information.