



PRODUCT NAME

UltraSpartic HS

MANUFACTURER

Ultra Durable Technologies
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PRODUCT DESCRIPTION

UltraSpartic HS is a unique, very high solids and very low odor polyaspartic / polyurea that utilizes the latest polyaspartic technology.

UltraSpartic HS and UltraSpartic 85 are frequently used as topcoats in abusive environments such as garages, warehouses and production areas.

UltraSpartic HS & 85 may be used as a clear primer for Ultra HTS Grind, Clear Prime & Seal Systems.

UltraSpartic HS & 85 may also be pigmented with UltraColor Pigment Packs to achieve a solid-colored primer, body-coat, or topcoat.

Finally, UltraSpartic HS & 85 have excellent bond strength, UV resistance, chemical resistance and gloss retention.

UNIQUE ADVANTAGES OF ULTRASPARTIC HS

- Low VOC (50 state VOC and DOT compliant)
- Very low odor
- Excellent UV stability
- Good leveling properties without a lot of solvent
- Tintable with UltraColor Pigment Packs
- DOT non-regulated

PROVEN INDUSTRIES

Commercial: stadiums, restaurants, kitchens, restrooms

Institutional: corridors, loading docks, storage facilities

Government: Armed Forces bases, parking garages

Residential: garages and decorative concrete floors

Industrial: warehouse, production areas, mechanic shops

PACKAGING

2 components, 2:1 ratio (2 Parts A : 1 Part B)

3-gallon Kit: 2 x 1-gal. can Part A + 1 x 1-gal. can Part B

15-gallon Kit: 2 x 5-gal. pail Part A + 1 x 5-gal. pail Part B

Optional – Tintable with UltraColor Pigment Pack:

COVERAGE RATE

Average coverage rate: 80-320 SF / gallon (5-20 mils).

Thin-film primer coverage: up to 800 SF / gallon (2 mils).

Texture, absorption of surface and application processes will determine final coverage rates. Rough or porous concrete may require additional material.

SHELF LIFE

12 months unopened when stored at room-temperature (59-77°F, 15-25°C)

TECHNICAL DATA

Solids content	97% +-2%	ASTM D2369
Volatile Organic Content (VOC)	26 g/l	ASTM D7668-12
Gloss @ 60° angle	95°	ASTM D523
Mixed viscosity	850 cps	ASTM 2196
Mixed viscosity (5% red.)	388 cps	ASTM 2196
Mixed viscosity (10% red.)	180 cps	ASTM 2196
Pot Life (double viscosity)	20 minutes	
Working Time	17 minutes	
Dry to touch	1-2 hours	
Re-coat window (clear)	24 hours	
Re-coat window (pigmented)	8 hours	
Water-resistant	3 hours	
Light foot traffic	4 hours	
Chemical/tire resistant	24 hours	
Full cure	7 days	
Taber Abrasion (CS17 Wheel, 1000 cycles)	36 mg	ASTM D4060
Pencil Hardness	2H	ASTM D3363
Pull-off adhesion	concrete failure	ASTM D7234
Impact Resistance	60%	ASTM D6905
Tensile Strength	38,234 psi	ASTM D2370
Elongation	21%	ASTM D2370
Elasticity (Mandrel Bend)	1/8" Pass	ASTM D522



CHEMICAL RESISTANCE

Isopropyl 70%	1	50% sodium hydroxide	1
Bleach	2S	Jet fuel (JP-4)	1
30% hydrochloric acid (Muriatic)	1	Methyl Ethyl Ketone	2
37% sulfuric acid (Battery acid)	1S	Brake fluid	1
10% acetic acid	1	Skydrol 500 B	1

1=No Effect, 2=Slight, 3=Moderate, 4=Severe

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 shall have a moisture vapor emission rate of less than 3 pounds / 1,000 sf / 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: UltraSpartic HS SHALL NOT be applied when the air temperature is above 90°F or below 20°F.

Relative Humidity (RH): UltraSpartic HS SHALL NOT be applied when the RH is above 80%.

Floor Temperature and Dew Point: UltraSpartic HS SHALL NOT be applied when the substrate (floor) temperature is less than 5° above the dew point (See DEW POINT CALCULATION CHART). 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. All substrates must be prepared by trained or experienced contractors or maintenance personnel. UDT and its representatives or sales agents will not be responsible for coating failures due to improper preparation processes, undetected moisture vapor emissions, or other unacceptable environmental conditions.

FLOOR PREPARATION

Direct to concrete preparation: Concrete shall be lightly shot-blasted or diamond ground with 30-80 grit metal bond diamonds to achieve a minimum of CSP 2 - CSP 3 concrete surface profile. Concrete must be cured prior to coating (poured and aged at a material temp of at least 75°F for at least 30 days), structurally sound, and free of contaminants including but not limited to waxes, loose paint, dust, dirt, grime, oils, release agents, curing compounds, and any surface laitance (a layer of weak and nondurable material). If prepared concrete is suspected to be contaminated with any of these materials, test for their 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 thoroughly dry prior to coating.

Topcoat preparation: If applying UltraSpartic HS as a topcoat over freshly applied UDT's coatings such as MC Epoxy or Cold Cure Epoxy, apply within the stated recoat window or abrade with 80-150 grit screens prior to application. If applying UltraSpartic HS as a second coat over UltraSpartic HS, it is always recommended to screen or abrade the surface. If UltraSpartic HS is being applied over an old or existing resinous flooring, mechanically abrade the surface by grinding with 70-100

grit metal bond diamonds or scrub with 60 grit sand screens.

MIXING INSTRUCTIONS

Ensure that parts A and B are at room temperature (59-77°F, 15-25°C) prior to mixing.

1) Wear gloves and safety glasses when mixing. Mix quantity that will be used within working time (17 minutes at 75°F).

2) Pre-mix part A for 1 minute.

3) By volume, pour out two (2) parts A into a separate mixing container.

4) Optional – Add UltraColor and mix for 1 minute or uniform in color (either 1 or 2 x pints per 3 mixed gallons or UltraSpartic - depending on system).

5) Optional – Add up to 20% Solvent Reducer and mix for 1 minute.

6) Add one (1) part B to the mixing container and drill-mix at low-speed for 3 minutes.

7) Complete spreading and rolling within 17 minutes.

ULTRACOLOR OPTIONS:

See UltraColor Pigment Pack TDS for color availability. Not all colors will achieve 100% hide in one coat. White and some other light colors may require multiple coats, thicker film builds, and/or more pigment when mixing. Contact your UDT Representative for additional information.

APPLICATION INSTRUCTIONS

Apply UltraSpartic HS using a flat or notched squeegee and back-roll the spread material immediately with a 3/8" nap or shorter roller. The "pour and roll" method may also be used. To avoid roller lines or tracking, roll quickly from end to end. Do not exceed 5 minutes of working time or 20 minutes of pot life. Use joints or saw cuts as natural breaks to divide sections of the floor. UltraSpartic HS will set-up, dry and cure faster in high-humidity environments. Never apply to a wet or damp substrate. Film thicknesses greater than 20 mils may entrap solvent resulting in entrapped air / CO₂ bubbles. If allowed to puddle, CO₂ bubbles will appear as white or frosted areas. Contact your UDT representative if a film-build higher than 20 mils is desired.

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 representatives or sales agents will not be responsible for injury incurred in a slip and fall accident.

MAINTENANCE INSTRUCTIONS

After completing the application of UltraSpartic HS, routine sweeping, mopping, washing and mechanical scrubbing is recommended. Cleaning with plain water is suitable in most environments. Use pH neutral cleaners if necessary. The installer should provide the owner with maintenance instructions. Clean and rinse thoroughly if floors become slippery due to animal fats, oil, grease, or soap film.

WARRANTY

Ultra Durable Technologies, Inc. products are warranted to be of uniform quality within manufacturing tolerances. Since no control is exercised over its use, no warranty, expressed or implied, is made to the effects of such use. 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 UDT Representative for more information about the UDT Performance Guarantee.