



PRODUCT NAMES

UltraSpartic 85-EXT LO

MANUFACTURER

Ultra Durable Technologies
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PRODUCT DESCRIPTION

UltraSpartic **US85-EXT LO** is a unique, low odor, low VOC polyaspartic with excellent leveling properties, even in hot and humid environments. **US85-EXT LO** achieves extreme hardness and abrasion resistance while retaining the flexibility needed for flooring surfaces.

US85-EXT LO is commonly used as a topcoat in abusive environments such as garages, warehouses, and production areas due to excellent hardness, bond strength, UV resistance, chemical resistance, and gloss retention. It may be used as a clear primer or pigmented with UltraColor Pigment Packs to achieve a solid-colored primer, body-coat, or topcoat.

UNIQUE ADVANTAGES OF US85-EXT LO

- DOT and IATA (air) non-regulated
- Low odor, low VOC, and low viscosity
- Excellent UV stability
- Great leveling properties
- Tintable with UltraColor Pigment Packs

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, 1:1 ratio (1 Part A: 1 Part B)

2-gallon Kit: 1-gallon can Part A + 1-gallon can Part B

10-gallon Kit: 5-gallon pail Part A + 5-gallon pail Part B

Optional – pigment with UltraColor Pigment Pack(s)

COVERAGE RATE

Average coverage rate: 100-320 SF / gallon (5-16 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

6 months (unopened and stored at 59-77°F / 15-25°C)

TECHNICAL DATA

Description	US85-EXT LO	Test Method
Solids (weight) %	85	ASTM D5201
Solids (volume) %	83	ASTM D5201
VOC (grams / liter)	24	ASTM D5201
Gloss 60°	90	ASTM D523
Mixed viscosity (cps)	225	ASTM 2196
Taber abraser (CS-17, 1000g, 1000 cycles)	12	ASTM D4060
Konig hardness	180	ASTM D4366
Pull-off adhesion	concrete failure	ASTM D7234
Mandrel bend 1/8"	Pass	ASTM D522
Dry times (in hours) for light foot traffic at various temps & RH		
90°F / 80% RH	6	ASTM D5895
75°F / 50% RH	12	ASTM D5895
50°F / 40% RH	20	ASTM D5895
30°F / 40% RH	N/R	ASTM D5895
Additional Data collected at 75°F, 50% RH, 10 mil application		
Pot life/double viscosity (mins)	27	
Working time (mins)	25	ASTM D5895
Dust-free time (hours)	8	ASTM D5895
Water-resistant time (hours)	12	ASTM D5895
Chemical resistance & wheeled traffic (hours)	72	
Full cure	7 days	
Recoat window (hours)	24	

CHEMICAL RESISTANCE (24-hour exposure)

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 must 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: US85-EXT LO should not be applied when the air temperature is above 90°F or below 50°F.

Relative Humidity (RH): US85-EXT LO should not be applied when the RH is above 80%.

Floor Temperature and Dew Point: US85-EXT LO must not be applied when the substrate 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. All substrates must be prepared by trained or experienced contractors or maintenance personnel. UDT and its distributors or representatives 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- to 80-grit metal bond diamonds to achieve a minimum Concrete Surface Profile (CSP) of 2 to 3. 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 85-EXT LO as a topcoat over freshly applied coatings such as MC Epoxy or UDT Polyurea, apply within the recoat window or abrade with 80-150 grit screens prior to application. If reapplying as a second coat over UltraSpartic 85-EXT LO, recoat within 24 hours or screen / abrade the surface. If UltraSpartic 85-EXT LO is being applied over an old or existing resinous flooring, mechanically abrade the surface by grinding with 70- to 100-grit metal bond diamonds or scrub with 60-grit sand screens.

MIXING INSTRUCTIONS

A + B (1:1 ratio)

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

Wear gloves and safety glasses when mixing. Mix quantity that will be used within working time (25 mins).

- 1) Pre-mix Part A for 1 minute.
- 2) By volume, pour out one (1) Part A into a separate mixing container.
- 3) *Optional* – Add UltraColor and mix for 1 minute or until uniform in color.
- 4) Add one (1) Part B to the mixing container and drill-mix at low speed for 3 minutes.

ULTRACOLOR OPTIONS

See UltraColor Pigment 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 distributor or representative for additional information.

APPLICATION INSTRUCTIONS

Apply UltraSpartic 85-EXT LO 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 working or pot lifetimes. Use joints or saw cuts as natural breaks to divide sections of the floor. UltraSpartic 85-EXT LO will set up, dry, and cure faster in high-humidity environments. Never apply to a wet or damp substrate. Film thicknesses greater than 13 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 13 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 distributors or representatives will not be responsible for injury incurred in a slip and fall accident.

MAINTENANCE INSTRUCTIONS

After completing the application of UltraSpartic 85-EXT LO, 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 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.