



## PRODUCT NAME

# UDT Polyurea (Summer and Winter)

## MANUFACTURER

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## PRODUCT DESCRIPTION

UDT Polyurea is a high-solids, concrete basecoat with rapid curing properties that allows for fast chip-scraping and top-coating times. UDT Polyurea was developed as an alternative to the MC Epoxy line of coatings to provide contractors the ability to complete projects quickly like the increasingly popular “1 day garage floor” system.

UDT Summer and Winter are pre-pigmented in Mineral Gray and Medium Tan. The Summer version is designed for warmer, humid environments while the Winter version is designed for cold temperature applications.

## WHY CHOOSE UDT POLYUREA?

Due to its flexibility and tenacious bond strength to concrete, UDT Polyurea is typically specified as a thin-film, pigmented “body coat” for the UDT Chip-Flake and Quartz systems.

Contractors choose “Summer” for its extended working time and industry-comparable fast dry times and “Winter” when temperatures are below 60°F and fast dry times are still desired.

Contractors appreciate the friendly “flow” and “feel” of UDT Polyurea along with the excellent hide (opacity) and lack of settling in the containers.

## UNIQUE ADVANTAGES

- Low odor & low viscosity
- Rapid dry times
- Excellent pigment stability and opacity (hide)
- Universal Part B
- Non-hazardous / DOT & IATA (air) non-regulated

## PROVEN INDUSTRIES

**Residential:** Garages and decorative concrete floors  
**Commercial:** Stadiums, restaurants, kitchens, restrooms, decorative floors  
**Institutional:** Corridors, loading docks, warehouses  
**Government:** Armed force bases, airport hangars, warehouses

## PACKAGING

**2 components with a 2:1 ratio (2 Parts A : 1 Part B)**  
3-gallon Kit: 2x1-gal. cans Part A + 1x1-gal. can Part B  
15-gallon Kit: 2x5-gal. pails Part A + 1x5-gal. pail Part B

Part A: Summer or Winter  
Part B: Universal

## COVERAGE RATES

**Recommended coverage rate and mil thickness:**  
Apply between 5-7 mils wet (230-320 SF / gallon)  
Do not apply more than 8 mils wet (<200 SF / gallon)  
*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 (72F, 40% R.H.)

|                                   |                              |            |
|-----------------------------------|------------------------------|------------|
| Solids content                    | 99% +-1%                     | ASTM D2369 |
| VOC content                       | 6 g/L                        | ASTM D5201 |
| Mixed viscosity                   | 750 cps                      | ASTM D2196 |
| Taber Abrasion CS-17, 1000 cycles | 61 mg loss                   | ASTM D4060 |
| Konig Hardness                    | 155                          | ASTM D4366 |
| Tensile Strength                  | 1982 psi                     | ASTM D2370 |
| Elongation                        | 45.83%                       | ASTM D2370 |
| Mandrel Bend (1/8")               | Pass                         | ASTM D522  |
| Reverse Impact Resistance         | 154                          | ASTM D2794 |
| Pull-off adhesion                 | > 750 psi (concrete failure) | ASTM D7234 |
| Permeability                      | 0.87                         | ASTM D1653 |
| Recoat window                     | 24 hours                     |            |
| Full cure                         | 7 days                       |            |

## ADDITIONAL TECHNICAL DATA

| <b>SUMMER DRY TIMES</b>    | 60°F<br>25% RH | 70°F<br>50% RH | 85°F<br>75% RH |
|----------------------------|----------------|----------------|----------------|
| Working Time (mins)        | 30             | 20             | 15             |
| Chip Scraping Time (hours) | 2.5            | 1.5            | 1              |

| <b>WINTER DRY TIMES</b>    | 10°F<br>50% RH | 35°F<br>50% RH | 50°F<br>50% RH |
|----------------------------|----------------|----------------|----------------|
| Working Time (mins)        | 30             | 30             | 15             |
| Chip Scraping Time (hours) | 4              | 3              | 1.5            |

## ENVIRONMENTAL TESTING

**Moisture Content:** 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). 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. Rates above these thresholds require a moisture vapor barrier. (see UDT MV Epoxy Primer)

**Air Temperature and Humidity / RH:** High temperatures and high humidity will shorten the dry time and working time. Low temperatures and low humidity will lengthen the dry time and working time.

**Floor Temperature and Dew Point:** UDT Polyurea must not be applied when the substrate (floor) temperature is less than 5° above the dew point. Test the air temperature, relative humidity, and floor temperature in the area using a Psychrometer and Infrared Thermometer. Monitor the substrate temperature, indoor temperature, and RH. Utilize fans and/or dehumidifiers as needed to 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 distributors will not be responsible for coating failures due to improper preparation processes, undetected moisture vapor emissions, or other unacceptable environmental conditions.

## FLOOR 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.

## MIXING INSTRUCTIONS

- 1) Wear gloves and safety glasses when mixing. Mix quantity that will be used within working time.
- 2) Pre-mix part A for 1 minute
- 3) By volume, pour out 2 parts A into a separate mixing container
- 4) By volume, add 1 part B to the mixing container and drill-mix on low-speed for 90 seconds
- 5) Immediately pour all contents onto the floor and complete spreading and rolling within the stated working time in the table above.

## APPLICATION INSTRUCTIONS

- 1) Patch cracks, holes and spalling prior to application. Wear spiked shoes and pour UDT Polyurea on floor.
- 2) Spread evenly with a 5-7 mil squeegee.
- 3) Roll all areas with a high-quality 3/8" nap woven roller to ensure a consistent application thickness in all areas.
- 4) Broadcast chips before the coating begins to set up.
- 5) Carefully scrape and remove loose chip flakes once UDT Polyurea has hardened sufficiently - approx. 1.5 - 2 hours.
- 6) Mix and apply UltraSpartic 100, 85-EXT, or 85-FAST. See appropriate topcoat product TDS for mixing and application instructions.

## 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.