

Technical Data Information

A-4300 Polyaspartic Polyurea

73% Solids Polyaspartic Topcoat

Description

Americrete A-4300 Polyurea is a two component, high-solids, Polyaspartic Polyurea. The A-4300 quick dry time coupled with its UV resistance, mar resistance, and chemical resistance will outperform most other types of sealers or topcoats. It is available in a 2 hour cure formula.

Uses

A-4300 is designed for professional use only and is specified as the finish coat for use in moderate to severe chemical environments or in heavy traffic areas. Apply A-4300 as a coating over Americrete water base and 100% solids epoxies. A-4300 can also be applied over decorative paint chips and can be used as a sealer on a variety of other substrates such as plain concrete, acrylic cements and Acid Stained Concrete Flooring with moisture vapor pressure under 3.5lbs/1000 ft²/24hr period. Use A-4300 on Industrial Floors, Garage Floors, Decorative Floors, Restaurant Floors, Food Processing Facilities, Automotive Service Areas, and other moderate-high traffic areas.

Advantages

- SCAQMD VOC Compliant
- Chemical Resistant
- Color and Gloss Retention
- Impact & Abrasion Resistant
- Low Solvent Smell
- Fast Dry Time
- Walk on 6 Hours, Drive on 36 Hours

Coverage

250-300 sf per gal over smooth surfaces
200-250 sf per gal over rough surfaces

Packaging

1 gallon kits premeasured with (½ gallon of Isocyanate A) and (½ gallon of Resin B) in 1 gallon cans
10 gallon kits premeasured in two 5 gallon pails

Colors

Clear

Inspection

Concrete must be clean, dry, and free of grease, paint, oil, dust, curing agents, or any foreign material that will prevent proper adhesion. The concrete should be at least 2500 psi and feel like 30-grit sandpaper. The concrete should be porous and be able to absorb water. A minimum of 28 days cured is required on all concrete. Relative humidity in the concrete floor slab should be below 70% (per ASTM F-2170). All moisture should be kept away a min. of 72hrs before application and a min. of 72 hours after installation. This includes sprinklers, rain, fog, dew, etc.

Before starting flooring work, test existing concrete slab to make sure there is no efflorescence or high levels of alkalinity. Alkalinity refers to a high pH reading which means the floor is not neutral. A high alkaline environment can cause salts to creep up through the cement called efflorescence. These salts have a tendency to prevent or destroy the bonding of coatings to the concrete. The most common form of testing is the use of a wide-range pH paper or tape. Make sure the floors pH reading ranges between 5-9 to ensure adhesion. The testing of concrete for alkalinity can show the amount of alkalinity only at the time the test is ran, and cannot be used to predict long-term conditions.

Calcium chloride tests should be conducted to determine if the concrete is sufficiently dry for a floor coating's installation. The calcium chloride tests should be conducted in accordance with the latest edition of ASTM F 1869, *Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride*. When running a calcium chloride test, it is important to remove any grease, oil, curing agents, etc. so accurate readings can be obtained. A rate of 3.5lbs/1000 ft²/24hr period or less is an acceptable amount of vapor pressure for a polyurea installation. If the reading is any higher, please consult your Americrete Salesman for further instructions.

Failing to adhere to these strict guidelines can result in product delamination, discoloration, blistering, or all together failure of the coating system. Testing is the responsibility of the applicator. Americrete LLC bears no responsibility for failures due to any of the above conditions.

Surface Preparation

Over Concrete: Concrete should be mechanically profiled by shot blasting or diamond grinding. When using other methods or scarification, make sure it is roughed to feel like 30 grit sandpaper and so that it is porous and contaminant free so the product can soak in and properly bond.

Over Epoxy or CRU: Apply directly over new epoxy or Urethane within 24 hours of initial application. When applying over existing epoxy or CRU that has been cured for longer than 24 hours, sand the surface with 100 grit sand paper, remove debris and wipe with acetone just before new application.

Mixing

As Coating over Concrete, Epoxy, or CRU: Before application, A-4300 A-Side and B-Side should be pre-mixed in their individual containers. Add 1 part of the A-Side to 1 part of the B-Side while mixing, using a mechanical mixer (Jiffy Mixer) at low to medium speeds. No thinning is necessary. Mix until a homogeneous mixture and streak-free appearance is attained (approximately 3 minutes). Use care to scrape the sides of the container to ensure that no unmixed material remains.

Application

The A-4300 material may be squeegee, rolled or brushed. Apply product within 24 hours after previous coating is applied. Immediately after mixing, spread a strip of the batch onto the surface along the edges where it will be cut in using a brush or trowel. Leave remaining material in bucket and spread evenly using a 3/8" non-shedding nap roller cover beginning near the cut in area. Apply quickly and avoid over rolling, as product will begin to "tack-up" as it begins to cure.

Re-coat if needed *within* 24 hours of application to insure adhesion. If a delay occurs, it is recommended that the surface be sanded and wiped clean with acetone before reapplication.

Maintenance:

Cleaning the cured Polyurea is best done by mopping surface with mild soap and water or a mild detergent. For best appearance, Americrete recommends resealing the surface every 3-4 years. Reseal by lightly sanding existing coating, cleaning surface with acetone, and applying CRU over dry surface using above application specifications

Limitations

- Do not apply in temperatures below 50°F or above 90°F.

- Do not apply unless temperature is 5° above the dew point or if rain is expected within 24 hours.
- Do not apply on damp or moist surface as product will whiten and may cause delamination.
- Opened material must be used within 2 days.
- 1 gallon must cover at least 200 sf to properly cure.

- Please read MSDS sheet before use.

Clean Up

Equipment should be cleaned with environmentally safe solvent immediately after use.

Technical Data

	Test Method	Results
Shelf Life		6 months
Mixing Ratio by Volume A:B		1:1
Dry Film Thickness per Coat:	ASTM D-3363	4-7 mils
Tear Resistance DleC	ASTM D-1004-66	270 pli
Tensile Strength	ASTM D-412	3980 psi
Ultimate Elongation	ASTM D-412	8-10%
Gloss (60 deg)	ASTM D-823	90
Volume Solids	ASTM D-2697	73% by volume
VOC	ASTM D 2369-81	<50 g/l
Pot Life (75±3oF)		30 minutes
Recoat Time		7 hrs (min) -24 hrs (max)
Taber Abrasion	ASTM D-4060-84	33.9 mg Loss, C17 Wheel, 1000g Load, 1000 Cycles
Impact Resistance	ASTM D-2794-84	Inch-pounds Direct 120 Reverse 90
Pencil Hardness	ASTM D-3363-84	2-H
Pendulum Hardness	After 1 Day After 7 Days	43 Seconds 168 Seconds
Viscosity at 75 F(24 C) 50% RH		A-SIDE 350-400 cps B-SIDE 200-300 cps
Weight		A-SIDE 9.9 lbs/gal B-SIDE 9.2lb
14 Days Cured	4 hrs	24hrs
50% Sulfuric Acid	Slight Soften	Blister
10% Sulfuric Acid	No Effect	No Effect
10% Hydrochloric Acid	No Effect	No Effect
50% Ammonium Hydroxide	No Effect	No Effect
50% Sodium Hydroxide	No Effect	No Effect
IPA - Iso-Propyl Alcohol	No Effect	No Effect
MEK - Methyl Ethyl Ketone	No Effect	No Effect
Deionized (Water)	No Effect	No Effect
10% Betadine	No Effect	No Effect
Break Fluid	No Effect	No Effect
Gasoline	No Effect	No Effect