



ACC 103 Aliphatic Polyaspartic

USGBC Leed, EQ Credit 4: Low – Emitting VOC Compliant Materials

Product Description -

ADVACOAT ACC 103 Aliphatic Polyaspartic is a pure, 100% solids clear aliphatic polyurea polyaspartic floor coating. ACC 103 Aliphatic Polyaspartic has zero odors and is very moisture insensitive. This product has been formulated as a roll and brush on coating for concrete surfaces. This coating may be used over existing epoxy floors, or as a standalone floor coating with excellent color and UV stability.

ACC 103 Aliphatic Polyaspartic can be applied in temperatures as low as -20°F. When fully cured, ACC 103 will produce a highly abrasion and wear resistant, high-gloss, smooth finish.

Uses -

ACC 103 Aliphatic Polyaspartic adheres extremely well to properly prepared concrete substrates. The high tensile strength, and elongation of this coating allows this product to better withstand the abuse of industrial equipment, steel-wheeled carts, and forklifts with minimal effect. The excellent chemical resistance is well suited for some harsh applications.

ACC 103 is a versatile product for many system applications. Using consecutive coats while incorporating broadcast material or without, will produce durable, functional and decorative coating systems with little chance of inter-coat delamination.

Advantages -

- Fast Cure Times
- Low Moisture Sensitivity
- High Tensile Strength
- Color Stable
- Adheres well to Most Substrates
- No Odor, 100% Solids
- Excellent UV Stability
- Cures from as low as -20°F
- High Gloss Finish
- USDA, FSIS and CFIA Acceptable
- Outdoor Applications
- Zero VOC's
- Spray, Roll or Brush Application

Ideal Applications -

- Cold Storage Areas
- Industrial Warehouses
- Food Processing Areas
- Automobile Dealerships
- Pulp and Paper Mills
- Chemical Plants
- Aircraft Hangars
- Garage Floors
- Patios
- Walkways
- Driveway
- Show Rooms

Limitations-

Requires dry substrate. ACC 103 should not be applied to concrete substrates that show high levels of moisture vapor transmission (See 'Preparation' or 'Inspection' sections). Although ACC 103 Polyurea Polyaspartic can be applied at any thickness, limitations may apply when taking into consideration curing times. A thicker film build will have a longer curing time than a thin film. This product may dry extremely fast in high humidity. Although coating will cure in very low temperatures, keeping product stored at room temperature will make application easier, and dry times shorter. Contact Advantage Chemical Coatings for any further information regarding 'Limitations'.

Surface Inspection-

This product requires a dry substrate. Concrete substrates should be clean, dry and free of grease, oil, paint, curing agents or any contaminants that may inhibit proper adhesion of coating. Concrete should be cured at least 28 days before applying coating system.

Proper testing procedures should be practiced in regards to alkalinity and moisture vapor transmission. A pH reading should be taken to ensure concrete is neutral, and has a reading between 5 and 9 using a pH paper test. Any testing can only give a snapshot in time of results, meaning future readings may be different. Long term results may vary.

Moisture vapor transmission is a major cause of coating failure. Using a calcium chloride test to find the vapor emission rate of the concrete substrate gives a reading for the 72 hour period. Follow procedures of calcium chloride test manufacturer for accurate results. Readings of 3.5 lbs/1000 square feet during a 72 hour period or less are acceptable for applying coatings. Higher results should receive a moisture mitigation system. Contact Advantage Chemical Coatings for more details. Testing procedures are the responsibility of the coatings applicator.

Surface Preparation -

This product requires a dry substrate. Any moisture vapor transmission test revealing over 3.5 pounds per 1000 feet/24 Hours requires a moisture barrier system installed prior to using this product.

Concrete Substrate: A profile of CSP 2 is recommended for most system applications using ACC 75. Due to the low viscosity, this product is self priming. Ensure the substrate is free of contaminants, and the pores are open to allow ACC 75 to penetrate the surface. Shot blasting is not required for proper adhesion. As some coating systems using ACC 75 are thin mil, shot blasting may produce excessive texture to substrate which may show through the coating. Broadcast systems may benefit from CSP 3, but are not required.

Over Epoxy: ACC 75 may be applied over existing, or new epoxy coatings. Read epoxy manufacturers technical data sheet on recoat windows for proper adhesion to new epoxy coatings. Typically, any epoxy coating that has been applied, and let dry over 18 hours should be sanded with a floor machine, using 80 grit sanding screens. Epoxy coating should have been removed, and 100% of surface scuffed and profiled. A mechanical bond to a sanded profile is required, but also the pores of the existing coating should be opened for ACC 75 to have the best adhesion. Wiping properly prepared surface with denatured alcohol will ensure no loose dust particles from the sanding process are present. **ACC 75 should NOT be applied over polyurethane or acrylic coatings.**

Coverage Rates -

Theoretical Square Feet Per Gallon

Mils	5	10	15	20	30
	320	160	120	80	60

Note: 1604 mil inches per gallon. Totally dependent on substrate texture and condition.

Using ACC 103 as a roll on application will typically yield square footage spread rates of 150 - 250 square feet per gallon.

Packaging -

- 3 Gallon Kit: 1 gallon of 'A' side and 2 gallons of 'B' side.
- 15 Gallon Kit : 5 gallons of 'A' side and 10 gallons of 'B' side.
- 55 Gallon Drum Kits Available

Shelf Life -

One year, in original, unopened factory containers, under normal storage conditions of 55°F to 95°F.

Colors -

Basic colors from ADVACOAT solid Color Chart as standard colors. Tan, Cantilever Tan, Ostrich feather, Dark Gray, Light Gray, Black, Yellow, White, Tile Red and Mocha.

Custom tinting on request. Consult Advantage Chemical Coatings. Two week turn around time is required, although not standard.

Mixing -

Before application, Pre mix A side and B side separately in their individual containers.

Clear - Mixing ratio is **1 Part A to 2 Part B**. Measure one part of "A-Side" and two parts of "B-Side" and pour into a separate container with sufficient space to mix without spilling. Mix thoroughly by hand with stir stick for two minutes until product becomes clear. Be sure to scrape sides and bottom of mixing container so no unmixed material remains.

Pigment - When mixing in pigment, add one part A into two parts B, stir, add 10 oz. of ADVACOAT pigment per mixed gallon, into mixed product, and mix thoroughly until consistent color is attained.

Thinning - If desired add in 5% to 15% MEK or acetone to thin, and stir. Always use stir stick and scrape sides and bottom of mixing container.

Drill Mixing - Do not use drill mixer. Drill mixing this product will 'whip' air into product, which may entrap air bubbles into coating film, or cause product to kick off faster. Always mix ACC 103 with stir stick.

Clean Up -

Cured product may be disposed of without restriction. Excess liquid 'A' and 'B' material should be mixed together and allowed to cure, then disposed of in the normal manner. Product containers that are "drip free" may be disposed of according to local, state and federal laws.

Application -

ACC 103 Aliphatic Polyaspartic adheres well to several sound substrates including concrete, steel, and wood. All surfaces should be free of loose particles, rust, voids and spalls. For any concrete repairs, refer to Advacoat's ACC 101 Quick Patch product data sheet.

It is recommended that this product be applied in a multi-directional (north-south, east-west) motion to ensure proper coating thickness. ACC 103 Aliphatic Polyaspartic should be roller or squeegee applied 4 to 20 mils thickness per coat, depending on system requirements (See Advacoat's system specification sheets). There is no thickness limitation for ACC 103 Aliphatic Polyaspartic, however, to achieve proper air release and dry times, system guidelines should be followed.

An 80% to 100% solids (non-glossy) epoxy, solvent-based isocyanate or water dispersible isocyanate (for concrete only), and ACC 75 Aliphatic Polyaspartic are acceptable primers for ACC 103 Aliphatic Polyaspartic. Note: Some epoxy primers require the use of MEK as a wipe-down solvent (due to the build-up of active hydrogen or amine blush on the surface) prior to the application of ACC 103 Aliphatic Polyaspartic.

Top Coating: ACC 103 Aliphatic Polyaspartic may be top-coated after it has become tack free. Do not recoat without sanding prior coating of ACC 103 after 12 hours cure.

Repairs: Simply brushing on ACC 103 can make small repairs to cuts in the coating. This material can be brushed on the surface after light scuffing, although repairs may be noticeable.

Maintenance -

ACC 103 Aliphatic Polyaspartic can be over coated with a floor finish product as a sacrificial maintenance coat. This is highly recommended to extend the coating life expectancy in high foot traffic commercial settings, but not including industrial environments or areas that will receive any vehicle traffic. ACC 103 may be re coated at any time as long as proper surface preparation guidelines are followed. Applying a new clear coat of ACC 103 over coating systems, will typically bring the coating 'back to life'. Sanding pigmented coating systems and re coating with ACC 103 will typically 're-color' the coating without any variations in color.

Technical Services -

Sales and Customer Support 1-877-830-2628, or contact your local sales representative or distributor. Visit www.Advacoat.com for any relative information on products.

Warranty - ADVACOAT will refund the price of or replace, at its election, product it finds to be defective provided the product has been used properly. Except as expressly stated above, the Company makes no warranty of merchantability and no warranty of fitness for any particular purpose, nor does it make any warranty, expressed or implied, of any nature whatsoever with respect to the product or its use. In no event shall the company be liable for delay caused by defects, for loss of use, for indirect, special or consequential damages, or for any charges or expenses of any nature incurred without its written consent.

Physical Properties -

Cured Film Properties	Test Method	Typical Value
Shore Hardness	ASTM D2240	70D
Elongation	ASTM D638	15%
Tensile Strength, psi	ASTM D638	3850 Psi
Tear Strength, pli, Die C	ASTM D624	625
Taber Abrasion, mg loss. CM 17	ASTM D4060	66.8
Gloss, 60 Spec	ASTM D523	90+
Working Time (77°F)		10-12 Minutes
Tack Free		1 Hour
Walk On		3-5 Hours
Return to Use		16-24 Hours

Chemical Resistance -

ASTM D3912 - Modified 21 day immersion exposure

The information in this chart is intended only as a guide. This information has been compiled from various sources believed to be reliable. To verify compatibility or suitability of this product in specific applications, the product should be tested under the specific service conditions. The ratings are for resistance at 77° F unless otherwise noted. Recommended Conditional means there will be some effect: swelling, discoloration, cracking. Wash down within one hour of spillage to avoid effects.

R = Recommended

RC = Recommended/Conditional

NR = Not Recommended

Test Media:	Result:	Test Media:	Result:
Acetic Acid, 100%	NR	Motor Oil	R
Acetone	RC	MTBE	RC
Ammonium Hydroxide, 20%	R	MTBE (5%)/gasoline	RC
Antifreeze/Water	RC	Muriatic Acid (10% HCL)	R
Brake Fluid (DOT 3)	RC	NaCl (10%)/water	R
Clorox 10%/water	RC	Phosphoric Acid (10%)	R
Diesel Fuel	R	Potassium Hydroxide (10%)	R
Gasoline	R	Skydrol	RC
Hydrochloric Acid (10%)	RC	Sodium Hydroxide (50%)	R
Hydrofluoric Acid (10%)	RC	Sodium Bicarbonate	R
Hydraulic Fluid	RC	Sugar/Water	R
Isopropyl Alcohol	R	Sulfuric Acid (10%)	R
Lactic Acid	R	Sulfuric Acid (50%)	RC
MEK	RC	Toluene	R
Methanol	RC	Vinegar (5%)/water	R
		Water (180o F)	R