



## **HARDBOND™ Polyaspartic 085-TA185**

### **DESCRIPTION**

HARDBOND™ Polyaspartic is a high-solids two component Polyaspartic top coat designed for use over epoxies, flake, and quartz floors. It is not meant to go direct to concrete. It has a fast cure time with excellent adhesion and its' low viscosity allows for fast turnaround of coating projects. It is a hybrid polyaspartic that slow cures and is durable for commercial and industrial flooring applications. It is color stable allowing it to take UV exposure without color shifts seen with other coating systems. It is a 1:1 mix ratio system with sufficient pot life to be rolled or squeegeed. It has an application window with ability to apply at low temperatures and high humidity.

Coverage and Packaging:

Theoretical coverage is 200 sq. /ft. per gallon at 8 mils of coating thickness. Packaging consists of One Part "A" to One Part "B" for a total of 10 gallons.

### **PRIMARY APPLICATIONS:**

- Marine protection for fiberglass, steel, concrete or wood
- UV-Stable top coat
- Aircraft hangar floors
- Low temperature equipment
- Maintenance facilities
- Industrial shop floors

### **ADVANTAGES:**

- Lower odor than most polyaspartics
- Cures at temperatures just above freezing
- Can be applied below -20 degrees (-29.9 degrees Celsius). Will cure with special handling
- Excellent U resistance, non-yellowing and high gloss characteristics
- Excellent color stability
- Excellent abrasion and impact resistance
- Micromedia traction additives can be introduced into the liquid system or dispersed into the top coat
- Excellent chemical resistance, resistant to Skydrol
- Resistant to hot tire peel

- Excellent coefficient of friction properties
- High build capability in lifts of 10 to 12 mils maximum
- Can be matted with a matting agent
- Bonds to virtually all substrates of any dimension, including metals, concrete and fiberglass
- Tolerant to 300 degrees Fahrenheit (149 degrees Celsius) for random, incidental heat contact
- VOC compliant in all 50 states and Canada

## TECHNICAL DATA

Recommended Thickness: Primer 8 mils (200 sq. ft. per gallon), Finish Coat -over solid color 6 mils (266 sq. ft. per gallon), over vinyl chips 12 mils (140 sq. ft. per gallon)

Shelf Life: 12 months in original unopened factory sealed containers. Keep away from extreme cold, heat or moisture. Keep out of direct sunlight and away from fire hazards.

Mix Ratio By Volume: A:B = 1:1

Mix Ratio by Weight: A:B = 100:110

Pot Life 16 oz: 20 minutes @77 degrees Fahrenheit (25 degrees Celsius)

## PROPERTIES @ 73 degrees Fahrenheit and 50% R.H.

\*Times are approximate and will be affected by; changing ambient conditions, especially changes in temperature and relative humidity.

\*The indicated mileage is calculated for flat surfaces. A porous or imperfect surface will require more material in order to cover the same mileage.

### **SOLIDS CONTENT BY VOLUME – CLEAR**

Part A: 93%, Part B: 78%, Mixed: 85%

### **SOLIDS CONTENT BY WEIGHT – CLEAR**

Part A: 92%, Part B: 75%, Mixed: 83%

### **DENSITY (KG/L)**

Part A: 1.06, Part B: 1.15, Mixed: 1.11

### **THINNER RECOMMENDED**

Xylene

### **DRYING TIMES**

#### **TACK-FREE**

1 – 2 hours

#### **RECOAT TIME**

2 hours

#### **FOOT TRAFFIC**

2 – 4 hours

#### **HEAVY EQUIPMENT TRAFFIC**

24 hours

#### **FULL CURE**

4 – 7 days

### **ABRASION RESISTANCE, ASTM D4060**

9 mg loss

### **TABER ABRASER CS-17 WHEEL/1000 G (2.2 LBS)/100 CYCLES**

### **ADHESION, ASTM D4541**

Concrete Primer: >550 psi (substrate rupture)

### **WATER ABSORPTION, ASTM D570**

0.2%

### **WATER VAPOUR TRANSMISSION, ASTM E96**

Water procedure B Film 0.01 cm (0.004"):1 perm

### **HARDNESS (SHORE D), ASTM D2240**

57 - 60

### **FLEXIBILITY, 1/8" MANDREL, ASTM D1737**

Pass

### **FALLING SAND ABRASION RESISTANCE (L SAND/1 DRY MIL), ASTM D968** 45

### **VISCOSITY @77 DEGREES F (25 DEGREES C)**

Part A: 350-450 CPS, Part B: 75-100 CPS, Mixed: 125-225 CPS

### **GLOSS, ASTM D523**

95+

### **FIRE RATING CAN/ULC S102**

Estimated on similar coating

#### **FLAME SPREAD**

5

|  |               |
|--|---------------|
| <b>SMOKE DEVELOPED</b>                           | 94            |
| <b>TENSILE STRENGTH, ASTM D638</b>               | 6500-7500 psi |
| <b>COMPRESSIVE STRENGTH (PSI MPA), ASTM D695</b> | 9500          |
| <b>W/QUARTZ*</b>                                 | 13700         |
| <b>W/CHIPS*</b>                                  | 12200         |
| <b>ELONGATION AT BREAK, ASTM D638</b>            | 100%          |
| <b>TEAR STRENGTH (PLI), ASTM D2240</b>           | 350           |
| <b>VOC</b>                                       | 121.8 g/L     |

## **SURFACE PREPARATION**

Old Concrete – Concrete surface must be clean, sand blasting, diamond grinder w//30 grit or coarse, or water blasting is highly recommended to remove surface contaminates. Any oils or fats must be removed prior to product application. Acid etching may be required (followed by a thorough rinsing) to open the pores of the concrete to accept a primer. Do not apply to wet substrates. Chloride, moisture, and pH levels should be checked prior to application. In almost every application, a primer is recommended prior to use of 085-TA185.

New Concrete – The concrete should be allowed to cure for a minimum of 30 days. Compression resistance of concrete must be at least 25 MPa (3625 lbs/square inch) after 28 days and traction resistance must be at least 1.5 MPa (218 lbs/sq. inch). Sand blasting, diamond grinder w/30 grit or coarser or acid etching (followed by a thorough rinsing) is required to remove the surface laitance that appeared during the curing process. A primer should be used to reduce out-gassing and promote adhesion.

## **MIXING:**

Mix 1 part “A” to 1 part “B” into a clean pail using a Jiffy-type mixer carefully not to entrain air into the mix. Move mixer around in pail for 2 minutes to ensure proper mix of the “A” and “B” components. Only mix as much product as can be placed within 20 to 30 minutes of mixing depending on temperature. No induction time similar to epoxy mixtures is required prior to use. If media agents are to be incorporated, they are to be added after thoroughly mixing A and B. **WARNING:** Large masses of mixed and/or heated material will have a shorter pot-life. Do not apply in direct sunlight when temperatures and humidity are high.

## **APPLICATION:**

Apply with either a ¼”, 3/8” nap roller or squeegee making sure the product does not puddle. Make sure to back roll in opposite direction for uniform product application. Small chip brushes or 6 – 8” wall edgers may be used along the perimeter and in more difficult to reach areas. Avoid creating puddles.

## **CLEANING:**

Clean all application equipment with a specified cleaner. Once the material hardens, it can only be removed mechanically. If the product splatters, wash thoroughly with hot soapy water.

## **RESTRICTIONS:**

- Minimum/Maximum temperature of substrate: 42 degrees F/ 86 degrees F (5 degrees C/30 degrees C)
- Maximum relative humidity during application and curing: 85%
- Substrate temperature must be 5.5 degrees F above dew point measured

- Humidity content of substrate must be <4% when coating is applied
- Do not apply on porous surfaces where a transfer of humidity may occur during application
- Protect from humidity, condensation and contact with water during the 24 hour initial curing period.

## HEALTH AND SAFETY

Always wear proper safety equipment to protect eyes and skin. Keep a neat, clean mixing area to avoid potential safety issues. Make sure to read and understand all SDS sheets and become familiar with all application procedures and best practices. Recommended for use by professionals only! In case of skin contact, wash with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult with a doctor. For respiratory problems, transport victim to fresh air. Remove contaminated clothes and clean before reuse. For more information, consult the material safety data sheet.

Components A and B contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke an irritation. Avoid eye contact. Contact with may cause serious burns. Avoid breathing vapors release from this product. This product is a strong sensitizer. Wear safety glasses and chemical resistant gloves. A breathing apparatus filtering organic vapors approved by the NIOSH/MSHA is recommended. Predict suitable ventilation.

## IMPORTANT NOTICE

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## CHEMICAL RESISTANCE (Results (77 degrees C/25 degrees C)

|                        |    |                         |        |
|------------------------|----|-------------------------|--------|
| Acetic Acid 100%       | C  | NACL/Water 10%          | R      |
| Acetone                | C  | Nitric Acid 20%         | NR     |
| Ammonium Hydroxide 50% | RC | Phosphoric Acid 10%     | R      |
| Benzene                | C  | Phosphoric Acid 10%     | NR     |
| Brine Saturated Water  | R  | Potassium Hydroxide 10% | R      |
| Water Chlorinated      | R  | Potassium Hydroxide 20% | R, DIS |
| Clorox (10%) Water     | R  | Propylene Carbonate     | RC     |
| Diesel Fuel            | RC | Skydrol                 | C      |
| Gasoline               | RC | Sodium Hydroxide 25%    | R      |
| Gasoline/5% MTBE       | RC | Sodium Hydroxide 50%    | R, DIS |
| Gasoline/5% Methanol   | RC | Sodium Hypochlorite 10% | R      |
| Hydrochloric Acid 20%  | R  | Sodium Bicarbonate      | R      |
| Hydrochloric Acid 10%  | NR | Stearic Acid            | R      |
| Hydraulic Fluid (Oil)  | RC | Sugar Water             | R      |
| Isopropyl Alcohol      | R  | Sulfuric Acid 10%       | R      |
| Lactic Acid            | RC | Sulfuric Acid >50%      | RC     |
| MEK                    | RC | Toluene                 | R      |
| Methanol               | R  | 1,1,1-Trichloroethane   | C      |
| Methylene Chloride     | C  | Trisodium Phosphate     | R      |
| Mineral Spirits        | RC | Vinegar/Water 5%        | R      |
| Motor Oil              | R  | Water                   | R      |

|                   |   |                                   |    |
|-------------------|---|-----------------------------------|----|
| MTBE              | C | Water: 14 days at 179.6 degrees F | R  |
| Muriatic Acid 10% | R | Xylene                            | RC |

R = Recommended/little or no visible damage

RC = Recommended conditional/some effect, swelling or discoloration

C = Conditional/Cracking – wash within one hour of spillage to avoid affects

NR = Not recommended

DIS = Discolorative

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