

Protect 4300 AM

Antimicrobial Polyaspartic Coating



7875 Bliss Parkway North Ridgeville, OH 44039
440-327-0015 440-353-0549 - FAX

DESCRIPTION:

Protect 4300 AM is a two or three-component (when pigmented), 100% solids, antimicrobial modified aliphatic/polyaspartic floor coating material that exhibits fast cure, excellent UV resistance and has virtually no odor. **Protect 4300 AM** is an ideal coating for use in decorative applications where a rapid cure, UV resistant, low odor, high build coating is desired. **Protect 4300 AM** exhibits good resistance to the most common chemicals, has zero VOC's and meets all USDA guidelines for use in federally inspected facilities.

Protect 4300 AM has been modified with an antimicrobial component that is integral to the manufactured product. The product protects against bacterial and fungal growth. The antimicrobial properties will remain effective for the life of the product.

USES:

Protect 4300 AM provides excellent abrasion resistance and long-lasting protection for any Protective Industrial Polymers' floor coating system. This unique, fast-setting material is ideal for areas that need to be returned to service quickly but also need good abrasion, chemical and UV resistance.

ADVANTAGES:

- 100% Solids
- Fast return to service
- Solvent-free
- Good overall chemical resistance
- Very low odor
- Superior UV resistance

STORAGE: DO NOT allow **Protect 4300 AM** to freeze. All products should be properly stored above the floor on pallets or shelves, and in an area that has a constant minimum temperature of 50° F (10° C).

SHELF LIFE: Un-opened containers 1 year from date of manufacture.

Protect 4300 AM is supplied as a clear tint base and can be pigmented with a CP-Uxxx/Q color pack.

PACKAGING KITS/ PART NUMBERS:

Volume Mix Ratio: 2.OA : 1B : .125C

Protect 4300 AM – 3.125 gallon kit (Pigmented)
4300AM-A/5SF, 4300-B/1, CP-Uxxx/P Color Pack

LIMITATIONS:

- Do not apply when humidity exceeds 70% indoors.
- Do not allow to puddle during application.
- Allow each coat to dry to 'tack-free' or clear prior to re-coat.
- When re-coating, apply the next coat within 24 hours of completing the previous coat.
- Do not apply this product heavier / thicker than the recommended spread rate / mil thickness.

APPLICATION PROPERTIES*:

Volume Mix Ratio	2 to 1 (Part A to Part B)
Viscosity (mixed)	300-600 CPS Typical
Solids Content (%)	100% (ASTM D-2697)
Hardness (ASTM D-2440)	70-75 (Shore D) @ 7 days
VOC	0 g/l (EPA Method 24)
Application Temp	30°-85° F (0°-29° C)
Working Time	10-15 Minutes @ 75°F (24°C)
Recoat Time (minimal foot traffic for recoat)	2-3 Hours @ 75°F (24°C)
Moderate Foot Traffic	4 Hours @ 75°F (24°C)
Open to Forklift traffic	12-16 Hours @ 75°F (24°C)

Flexibility ASTM D1737 Passes ¼"

Elongation ASTM 2370 10%

Tensile Strength ASTM D412 7500 psi

Abrasion Resistance ASTM D4060 CS-17 wheel 65 mg. loss

Coefficient of friction ASTM 2047 Dry Neolite 0.60

INSPECTION AND APPLICATION:

Caution! Follow all precautions and instructions prior to installation.

SUBSTRATE: The substrate must be free of curing membranes, silicate surface hardener, paint, or sealer and be structurally sound. If you suspect concrete has been treated or sealed, proceed with complete removal process. Consult your PIP representative for further instruction if silicate hardeners or membranes have been utilized.

MOISTURE: This flooring system may be used if the concrete has a maximum moisture vapor transmission (MVT) of 3 pounds per 1000 sq. ft. over 24 hours using calcium chloride testing ASTM F1869 and a maximum internal relative humidity of 75% using ASTM F2170.

VAPOR/CONTAMINATION: Testing for MVT does not guarantee against future problems. If there is no known vapor barrier or the vapor barrier is inadequate, there is an elevated risk of bond failure. Other factors including the migration of oils, chemicals, excessive salts or Alkali Silica Reaction (ASR) from the concrete from may also elevate the risk of adhesion difficulties. Consult your PIP representative for approved mitigation treatments.

TEMPERATURE AND HUMIDITY: During the application and cure of the coating, the substrate temperature, material temperature and room conditions must be maintained between 65°F (18°C) and 90°F (32°C) for best outcome. Relative Humidity (RH) should be limited to 30-70%. As the relative humidity and temperature increase, working time, pot life, levelling and cure time decrease rapidly. DO NOT apply coatings unless the surface temperature is more than five degree over the dew point.

APPLICATION EQUIPMENT:

- **Protective equipment and clothing as called for in the MSDS.**
- **Jiffy® Mixer Blade model ES.**
- **Clean container to mix materials in.**
- **Low speed high torque drill motor.**

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- High quality short nap roller covers 3/16 inch mohair.
- Application Squeegee or application trays.
- Disc sanding equipment with 80-100 mesh sanding screens.
- Vacuum equipment.

PREPARATION:

Surface dirt, grease, oil and contaminants must be removed by detergent scrubbing and rinsing with clean (clear) water.

Acid Etch (bare concrete): {Not recommended for high build coatings} Successive acid etch treatments may be required to obtain proper adhesion to concrete. Rinse with clean water and neutralize with TSP solution.

Shot Blasting or diamond grinding the surface is the preferred method of preparation. The success of industrial diamond grinding as a concrete preparation method will vary depending on technique and the hardness of the concrete.

RECOMMENDED APPLICATION RATE:

Protect 4300AM can be applied at 8-10 mils (160- 200 SF/gallon per coat on a neat smooth surface. For application over a silica sand or quartz broadcast, maximum application rate is 100SF/gallon (16 mils consumption rate). This will result in a textured surface.

MIXING: Use a Jiffy® ES mix blade attach to a slow speed drill (using a paint stick to mix is not adequate). Mix only enough material at one time not to exceed the pot life. **Note:** Once this material is opened and mixed it can't be resealed for later use.

MIX: If pigmented coating is desired, first add **1 pint** of color pack to Part A and mix for 1 minute. Then add Part B and mix all components together for an additional 2 minutes.

APPLY: Apply by brush, roller or squeegee. **Protect 4300 AM** test data is based on environmental temperatures of 75° F (24° C) and 40% RH. Viscosity and working time are always affected by temperatures above or below that mark. When applying product always consider the ambient, surface and product temperature at the time and place of installation. Mix, spread and level the material as quickly as possible with a squeegee and roller. Immediately pour next adjacent mix and repeat as close as possible. Minimize rolling into the previous section to prevent undesired stipple or poor leveling.

TECHNICAL SUPPORT: For application questions, please contact your salesman or PIP technical service at 440-327-0015.

DISPOSAL: Dispose in accordance with federal, state, and local regulations.

READ MATERIAL SAFETY DATA SHEET (MSDS) FOR SAFETY AND PRECAUTIONS. USE PRODUCT AS DIRECTED. FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN.

MAINTENANCE GUIDELINES:

Allow floor coating to cure at least one week before cleaning by mechanical means (IE: sweeper, scrubber, disc buffer).

CARE: Increased life of the floor will be seen with proper maintenance and will help maintain a fresh appearance of your new Protective Industrial Polymers floor. Regularly sweep to avoid ground in dirt and grit which can quickly dull the finish, decreasing the life of the coating. Spills should be removed quickly as certain chemicals may stain and can permanently damage the finish.

Only soft nylon brushes or white pads should be used on your new floor coating. Premature loss of gloss can be caused by hard abrasive bristle Polypropylene (Tynex®) brushes.

CAUTION: Heavy objects dragged across the surface will scratch all floor coatings. Avoid gouging or scratching the surface.

Pointed items or heavy items dropped on the floor may cause chipping or concrete pop out damage.

REPAIR: Repair gouges, chip outs, and scratches as soon as possible to prevent moisture and chemical under cutting and permanent damage to the floor coating.

WARRANTY AND CONDITIONS OF USAGE

WARRANTY AND LIMITATION OF LIABILITY: Protective Industrial Polymers Inc. ("PIP") warrants that its products shall conform to the manufacturer's written specifications and shall be free from defects for one (1) year from the date of purchase. PIP MAKES NO WARRANTIES, IMPLIED OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES OF ITS PRODUCTS AND EXCLUDES AND DISCLAIMS THE SAME, INCLUDING, WITHOUT LIMITATION, FAILURE OF THE PRODUCT DUE TO ACTS OF GOD, FLOODING, EXTREME OR ABNORMAL TEMPERATURES, HUMIDITY AND MOISTURE, STRUCTURAL CONDITIONS, SITE PREPARATION AND CONDITIONS, ACCIDENTS, DAMAGE CAUSED BY INSTALLATION OF MACHINERY, EQUIPMENT OR FIXTURES WITHOUT ADEQUATE FLOOR PROTECTION OR WITHOUT ADEQUATE TIME FOR CURING, FAILURE TO COMPLY WITH CONDITIONS OF USAGE (SPECIFIED BELOW), VANDALISM, NEGLIGENCE OR INTENTIONAL ACTS OF THIRD PARTIES OR OTHER CASUALTIES. If any PIP product fails to conform to this warranty, PIP shall either replace the product at no cost to Buyer or refund the cost of the product, in PIP's sole discretion. Replacement of any product or a refund of the cost of any product shall be the sole and exclusive remedy available to buyer, and buyer shall have no claim for incidental, special or consequential damages, including, without limitation, business interruption damages. Any warranty claim must be made within one (1) year from the date of delivery of products. PIP does not authorize anyone on its behalf to make any written or oral statements which in any way alter PIP's warranty or installation and storage information or instructions in its product literature or on its packaging labels. Any installation of PIP products which fails to conform to such installation information or instructions or the "Conditions of Usage" (specified below) shall void this warranty. Product demonstrations, if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of PIP's products for the Buyer's intended purposes.

CONDITIONS OF USAGE: Installation of all products purchased must be by professional installers periodically published by PIP or otherwise approved by PIP in writing. Modification to any of PIP's products voids the warranty. The installer shall maintain a written contemporaneous record of field conditions (including, without limitation, surface and atmospheric conditions, usage rates, and lot numbers of products installed). PIP reserves the right of inspection of any installed product, installation and maintenance records and records of field conditions and may conduct additional testing as is reasonably required to investigate any warranty claims. Warranty shall only apply for products or materials that have been paid for in full. Moisture Vapor Transmission (MVT) and ASR (Alkali Silica Reaction) Disclaimer and Exclusion: Although rare, some floors at or below grade level are sometimes subjected to saturation by moisture from beneath the concrete floor slab. This moisture can travel through the concrete and collect between floor toppings creating the potential for delaminating from hydrostatic pressure and or ASR. Conditions contributing to this include heavy rainfall, broken pipes, excess hydration within fresh concrete, and other factors or defective and old concrete. These factors are difficult, if not impossible to predict. PIP recommends testing for MVT and/or the presence of ASR in the concrete substrate prior to applying any polymer floor topping. The recommended test method for MVT is ASTM F 2170-11. ASR can be predicted by a higher than normal pH within the concrete. If high pH should be detected, it is recommended a lab test for ASR. If and when delamination of the floor occurs because of a moisture condition that exists beneath or in the concrete slab beyond the capacity of the individual product installed or failure of the concrete due to ASR, this Limited Warranty does not extend to such delaminating or topping failure. This writing constitutes the sole and only agreement of warranty relating to PIP products.

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