

AT 4500 - ALPHAGRIP COATING SERIES

NANO-CERAMIC COATING

APPLICATION INSTRUCTIONS

1. PRODUCT DESCRIPTION

AT-4500 Series coatings are specifically formulated to create non-slip traction on a wide variety of surfaces. It creates a tough “rubberized” feel that significantly improves traction and footing, especially in wet conditions. AT-4500 Series Coatings are environmentally friendly and may be used in a wide variety of settings. The coatings are easy to apply, durable and long lasting. AT-4500 Series is available in a range of colors and textures for a wide range of applications.

AT-4500 Color Coatings require a primer for optimal performance. Use of AT-4500 (metal surfaces) and AT-4501 (wood, concrete and fiberglass surfaces) is highly recommended.

AT-4506 and AT-4506T Clear Coatings **do not** require a primer.

This document is applicable to AT-4500, AT-4501, AT-4502, AT-4503, AT-4504, AT-4506, AT-4506T.

2. SURFACE PREPARATION

- Intended surface should be clean and free from oils, dirt and any other previous contaminants.
- Be sure that the surface is solid, not crumbly, and free of all surface contamination such oils, grease, waxes, silicone sealers, loose materials or anything that may impair the adhesion of the primers and/or coatings to the surface to be coated.
- If there is any contamination, use a scrub brush and a water-based detergent (e.g. Zep Purple, Simple Green, Dawn Liquid, laundry detergent or similar product) to clean the surface. Do **not** use solvent-based products.
- Different surfaces do require specific preparation in order to optimize the performance of the AlphaGrip coatings.
- **Concrete**
 - A clean concrete surface is critical. Be sure to understand how the concrete surface was used in the past to identify any potential contamination issues.
 - All oils, fuels, polishing and wax products, silicones or other contaminants must be removed, leaving a clean and dry surface.
 - Test a small area to be sure of proper adhesion to the cleaned concrete. If the coating may be lifted up in a sheet, adhesion is not acceptable and additional surface preparation is required. Check to see if a clear silicone sealer or other substance is still on the substrate surface. Abrade and / or chemically clean the surface and re-test.
 - Note: long-term exposure to some fuels or beer (e.g. in bars) may result in deep contamination of the concrete. In the case of beer, the contamination of the yeast can cause delamination over time. It is especially critical that such surfaces are cleaned and thoroughly dried before coating with AlphaGrip.
 - Recommended cleaning agents:
 - For lighter contamination, use Zep, Simple Green, Dawn Liquid or detergents.
 - For fuel and oil contamination, caustic detergents may be needed.
 - For surfaces that have lime or mineral deposits, the use of an acid etch may be required.
 - Typically wait 28 days or more for new concrete to achieve a cured surface suitable for coating.
 - A broom-finished surface is an ideal surface for the coating to get an exceptional bond.
 - Metal-troweled concrete is more difficult to achieve proper adhesion.
 - Look for signs of hydrostatic pressure coming from under the concrete. If this is present, properly sealing

AT 4500 - ALPHAGRIP COATING SERIES

NANO-CERAMIC COATING

APPLICATION INSTRUCTIONS

- and preparing the concrete may be needed to create a proper bond.
- AT-3700 Concrete & Barrier Coating may be used to ensure proper adhesion in these conditions. AT-3700 is silicone free and will not interfere with the adhesion of AlphaGrip.
- In some cases, shot blasting (abrading of the surface) may be required before applying the AT-3700 sealer if the surface has been previously sealed or is extremely hardened.
- **Wood**
 - New lumber should not require sanding.
 - Used or weathered wood should be sanded to expose a clean open grain to bond to by using a 80 to 100 grit sanding paper or sand belt.
 - Remove any split or cracked slivers or chipped paint, varnish or other sealers.
 - Be sure that the surface is clean and dry before proceeding with the application. Test for adhesion if there is any reason for concern.
- **Painted Surfaces**
 - Older cured painted surfaces must be clean, dry and free of any oils, waxes or other contaminants.
 - If contaminants are present clean with the appropriate water based cleaner (do not use solvent based cleaning agents).
 - Roughen the surface by sanding with 80 or 100 grit sanding paper or equivalent. The surface must be roughened prior to coating with the AT-4501 primer to be assured of a good bond. Testing for adhesion is strongly recommended.
- **Fiberglass and Gel-Coat:**
 - Be sure that the surface is free of any previous contaminants such as oils, waxes, silicones, etc.
 - Sand with 80 to 100 grit sand paper to remove the glossy surface. Test for adhesion.
 - Clean and dry the surface before starting the coating procedures for the AT-4501 primer.
- **Aluminum and Other Metals:**
 - All metals should be cleaned free of loose paint, dirt, rust or other contaminants.
 - Aluminum and other metals should be acid etched (per product instructions) prior to the application of the AT-4500 primer
 - If an acid etch is used, be sure to rinse thoroughly with water to remove any acid from the surface. Do **not** use a solvent or alcohol to rinse.
 - Prime the surface with the AT-4500 primer per application instructions.

3. APPLICATION – PRIMER (AT-4500, AT-4501)

- As with any new material, always test application and finished properties on a low value test article or panel before working on valuable surfaces.
- **Metal Surfaces (AT-4500):**
 - AT-4500 should be used on metal surfaces when applying AlphaGrip **colored** coatings.
 - **Dilution:** Primer does **not** need to be thinned. **Use as received.**
 - **Mixing:** Mix well with a Jiffy mixer or stir stick until uniformly mixed.
 - **Application:** Empty the primer into a paint roller tray and using a standard 3/8" nap roller or paintbrush to apply a modest coating of the primer to the surface.
 - **Dry time:** Coating dries to the touch in approximately 1 hour. Topcoat may be applied after 1-4 hours (at 72°F/22°C, 50% RH). **Do not exceed 48 hours** before applying an AlphaGrip topcoat. If more than 48 hours has elapsed, gently abrade the surface before applying the topcoat.
 - Dry time will vary due to temperature, humidity, and the applied coating thickness.
- **Concrete, Wood and Fiberglass Surfaces (AT-4501)**

AT 4500 - ALPHAGRIP COATING SERIES

NANO-CERAMIC COATING

APPLICATION INSTRUCTIONS

- AT-4501 should be used on concrete, wood and fiberglass surfaces when applying AlphaGrip **colored** coatings.
- AT-4501 is a 2-part (1:1) water based epoxy primer product specifically formulated to work with AlphaGrip colored topcoats.
- **Mixing: Completely mix** Part A and Part B before application. Use a Jiffy-type metal mixer at 250-500 rpm for 2-3 minutes to ensure that the 2 components are thoroughly mixed and start the cross-linking process. Note: failure to properly mix the two components may lead to product failure.
- **Application:** Empty the mixed contents into a paint tray. Use a 3/8" nap roller or paintbrush to coat the intended area with a modest amount of coating.
- **Pot-Life:** Once mixed the pot-life of the AT-4501 primer coating is approximately 90 minutes @ 72°F/22°C.
- To maximize pot-life once mixed, keep covered and cool.
- **Cure time:** AT-4501 should be ready to top coat with a Flex-Grip Colored Coating after 6 hours at 72°F/22°C (50% RH). Warmer conditions will shorten the cure time. Topcoat should be applied **no more** than 48 hours after primer (at 72°F/22°C, 50% RH).

4. APPLICATION – COLOR TOPCOAT (AT-4502, AT-4503, AT-4504)

- **ALWAYS** use a recommended primer when applying AT-4500 Color Coatings
- **Protecting surrounding areas or surfaces.**
- As with any coating material, always be cautious of surrounding plants and other articles or surfaces that may become coated during application (especially if spraying).
- Use painters' tape to cover surrounding areas.
- Carefully remove the tape immediately after applying the AlphaGrip coating to help prevent lifting or tearing of the coating edge during or after curing.
- **Coats:**
 - For light traffic areas, 2 coats are normally sufficient.
 - For heavy traffic areas, 3 coats will ensure of a long lasting finish.
 - Note: Better results will be obtained by building final thickness via several coats versus one thick coat.
- **Application temperature:**
 - Minimum: 40°F / 4°C
 - Maximum: 72°F to 120°F (22°C to 49°C) maximum @ 50% relative humidity
- **Mixing:**
- Using a metal Jiffy-type mixer blade @ 250 – 500 rpm.
 - Do not put the mixer immediately to the bottom of the AlphaGrip coating but rather start near the top of the solution and work down to the bottom as the mixture liquefies.
 - Ensure that the product is mixed uniformly before applying.
 - Product may need to be re-mixed as it is used to ensure that there is no unwanted settling or separation of the texture agents or colorants.
- **Roller application:**
- Only use an open cell-roller* to ensure an even distribution of the texture agents. (*AlphaGrip rollers are available for purchase if an open-cell roller is not available in your area).
- Start with slightly wet or water dampened roller before putting the roller into the AlphaGrip coating and beginning the application process
- Pour the AlphaGrip into a paint tray or work directly out of a 5-gallon bucket.
- Submerge the roller to completely saturate the roller with AlphaGrip, leaving all surfaces wetted (no bare areas).
- Apply the first coat as a uniform thin coating, re-wetting the roller as needed and moving across the area in one direction. Re-wet the roller as needed and back roll in a 90° or opposite direction to allow for a blending of the coating.

AT 4500 - ALPHAGRIP COATING SERIES

NANO-CERAMIC COATING

APPLICATION INSTRUCTIONS

- Back roll 4 to 5 times in each area to blend the material. It is suggested to do a final back roll using little to light pressure to uniformly elevate the texture agents to the surface.
- Follow this procedure from section to section until the entire area is covered.
- When the base coat of AlphaGrip is dry to the touch, a second coat may be applied. Being sure to follow the above procedures for each subsequent application.
- **Spray Application:**
- Use a texture spray gun system.
- Practice on a small testing area until confident that an acceptable finished surface area can be achieved.
- Choose the correct spray gun and nozzle tip sizes for the size of the texturing agent in the coatings formulation.
- Normal recommended spray pressure is approximately 40 PSI. This should create a spitting sound while spraying.
- Spray down onto the surface to avoid having the texture agents blowing off to the side.
- Adjust the spray pressure until the texture material remains in the applied coating. If the pressure is too high or the gun is held too close to the surface it may cause the texture to bounce back and not stay embedded in the coating.
- Use Caution. Do not apply too thick.
- Once the first coat is dry to the touch a second coating can be applied.
- Follow this procedure until the AlphaGrip is built-up to the intended final thickness.
- Be sure to remove any over-spray or spills immediately with a wetted cloth. AlphaGrip will become very difficult to remove once cured.

APPLICATION – CLEAR AND CLEAR TEXTURED TOP COAT (AT-4506, AT-4506T)

- **Protecting surrounding areas or surfaces.**
- As with any coating material, always be cautious of surrounding plants and other articles or surfaces that may become coated during application (especially if spraying).
- Use painters' tape to cover surrounding areas.
- Carefully remove the tape immediately after applying the AlphaGrip coating to help prevent lifting or tearing of the coating edge during or after curing.
- **Coats:**
 - AlphaGrip **Clear** Non-Slip coatings **do not** require a primer although careful and thorough efforts should be taken to ensure that any surface to be coated is clean, dry and free of any contamination that might interfere with the adhesion of the coating to the substrate surface. Test adhesion on a small section of the surface prior to starting the overall project.
 - Application of the Clear AlphaGrip coatings should achieve a finished film thickness that allows for effective coverage of 100 to 125 square feet per gallon on rough surfaces and up to 200 square feet per gallon on smoother surfaces.
- **Application temperature:**
 - Minimum: 40°F / 4°C.
 - Maximum: 72°F to 120°F (22°C to 49°C) maximum @ 50% relative humidity.
- **Mixing:**
- Mix the AlphaGrip with a Jiffy mixer or similar container to be sure that all contents are thoroughly blended.
- Further mixing during application is recommended to prevent separation or settling of product ingredients.
- **Roller Application:**
- When using a roller to apply the AlphaGrip Clear (smooth or textured formulations) always use an "open cell foam" type roller. Open cell rollers will help to ensure that the finished surface has the "stippled" or "textured" finish thereby improving the performance of the non-slip surface.
- **Spray Application:**
 - Spray application of the AlphaGrip clear coating is possible using a texture gun or similar equipment with an



AT 4500 - ALPHAGRIP COATING SERIES

NANO-CERAMIC COATING

APPLICATION INSTRUCTIONS

- appropriate tip size for the products viscosity and/or the texture element.
- Spray with a low-pressure system (approximately 40 psi). Spray directly downward to the substrate surface to get the best usage of the material and optimize the transfer of the texture agents in the coating. An angular spray technique may allow some of the texture agents to drift away from the intended surface and therefore should be avoided.
- Clean-up equipment, overspray or spills immediately with water or a water and soap solution. Cured AlphaGrip is difficult to remove and so any excess should be wiped away immediately.

7. DRYING & CURING TIMES

Drying Time	<ul style="list-style-type: none"> • Drying time will vary based on environmental conditions and applied thickness. Coating will generally be dry to the touch in approximately one hour at ambient temperatures. Warmer airflow will accelerate dry time. • Refer to application instructions for re-coating and top-coating times.
Curing Time	<ul style="list-style-type: none"> • Useable for light traffic normally in 24 hours or less. • Full cure properties normally in 5 days.

8. COVERAGE RATE

AT-4500. 18% Solids. 250 square feet per gallon at dry film thickness of 1.25 mils (6.08 square meters per liter at dry film thickness of 32 microns).

AT-4501. 18% Solids. 250 square feet per gallon at dry film thickness of 1.25 mils (6.08 square meters per liter at dry film thickness of 32 microns).

AT-4502. 66% Solids. 50 square feet per gallon at dry film thickness of 30 mils (1.23 square meters per liter at dry film thickness of 0.76 mm)*.

AT-4503. 66% Solids. 50 square feet per gallon at dry film thickness of 30 mils (1.23 square meters per liter at dry film thickness of 0.76 mm)*.

AT-4504. 66% Solids. 50 square feet per gallon at dry film thickness of 30 mils (1.23 square meters per liter at dry film thickness of 0.76 mm)*.

AT-4506. 66% Solids. 250 square feet per gallon at dry film thickness of 4 mils (6.08 square meters per liter at dry film thickness of 100 microns)**.

AT-4506T. 66% Solids. 250 square feet per gallon at dry film thickness of 4 mils (6.08 square meters per liter at dry film thickness of 100 microns)***.

* Dry film thickness to be built up in two coats.

** May be diluted with distilled water up to 10% for thinner build applications.

*** May be diluted with distilled water up to 5% for thinner build applications.



AT 4500 - ALPHAGRIP COATING SERIES

NANO-CERAMIC COATING

APPLICATION INSTRUCTIONS

9. STORAGE STABILITY & SHELF LIFE

The shelf life is one year when stored in the original, unopened container. Store containers in a well-ventilated and covered area away from extreme heat and moisture. Contact your ALPHATEK representative if you have any questions about the products or its uses.

10. SAFETY

Avoid prolonged and repeated contact with skin. Do not take internally. Refer to the Safety Data Sheet for this product prior to use.