



## Advanced Adhesive Technologies, Inc. AAT-420 Premium Vinyl and Plank AD-Hesive Specification Sheet

### Description:

AAT-420 Premium Vinyl and Plank Adhesive is an acrylic based adhesive specifically formulated for installing solid vinyl plank, tile, and LVT. It may also be used to install solid vinyl sheet flooring, PVC backed broadloom and carpet tiles. AAT-420 can be used on all grade levels over concrete and approved wood sub-floors in the absence of excessive moisture emissions and alkalinity. AAT-420 may be used over existing, non-cushion backed resilient flooring.

AAT-420 is nonflammable, contains no carcinogens, no solvents and is non-toxic. AAT-420 is moisture and alkali resistant and forms a tenacious, permanent bond. AAT-420 has excellent plasticizer migration resistance. AAT-420 is freeze-thaw stable. This zero VOC adhesive is protected by the CleanGuard® two-stage antimicrobial. CleanGuard® is a specifically formulated broad-spectrum, anti-microbial agent that protects our adhesives and sealers from microorganisms, such as mold or mildew, in both the wet and dry state.

### Site Conditions:

The building should be completely enclosed. All outside doors and windows should be properly installed with latching mechanisms in place.

Landscaping should be sufficiently completed to direct water away from the building. Gutters and downspouts should be in place.

All concrete, masonry, plastering, drywall, and other wet work should be completed and thoroughly dry prior to beginning the installation. Texturing and paint primer coats should be completed. Where possible the installation of the base molding should not take place until after the flooring has been installed.

Adequate ventilation should be available. The HVAC system for the building should have a consistent temperature of 65-75°F (air and sub-floor) and humidity levels should be between 35-55% for a minimum of 72 hours prior to and following the installation.

Basement and crawl spaces should be dry and adequately ventilated. Sub-floors must be checked for moisture content and emissions using industry accepted methods. Crawl spaces should meet local building codes regarding minimum heights, cross ventilation, and the use of vapor retarders.

Sub-floors must be free from dust, dirt, grease, wax, curing agents, sealers, oil, and any other bond inhibiting substances. The sub-floor should be level within 3/16" in 10' or 1/8" in 6'.

Concrete must be dry with moisture emission rates that do not exceed 5 lbs/100 sq ft / 24 hours as measured by the Anhydrous Calcium Chloride Test (ATSM-1869-04). The concrete surface pH must be between 5 and 10. Before moisture testing begins, the slab must be cured for a minimum of 30 days. Fill low areas with a cementitious leveling compound or latex mild additive latex patch with 3,000 psi compressive strength. Leveling compounds must be tested to ensure they are properly cured within the manufacturer's specified requirements before proceeding with the installation. Mechanical surfaces profiling is the preferred sub-floor preparation method. Mechanically profile the sub-floor to medium-grit sandpaper texture. Sanding or scoring with open paper or a titanium disk is preferred. Remove curing and parting compounds and other surface hardeners and floor coatings according to the manufacturer's instructions. Lightweight or acoustical concrete, less than 3,000 psi, must be primed with a compatible primer such as AAT-570 Primer/Sealer.

For Wood Joist Systems the sub-floor should be structurally sound, free of loose panels or boards, and free of protruding fasteners. Moisture content should be within normal industry standards for the areas average environmental conditions. Underlayment panels should be fastened according to the manufacturer's specifications. All panel seams should be sanded level and prepared according to the manufacturer's instructions. Minimum sub-flooring: 5/8" CDX plywood sub-floor/underlayment (Exposure 1), maximum 16" o.c. construction. Install the flooring perpendicular to the floor joists. Do not install flooring over existing glue-down wood flooring or nailed down wood flooring that is wider than 3 1/4". Wide plank floors must be covered with an acceptable underlayment.

AAT-420 may be used to install over existing sheet vinyl and vinyl tiles if the existing flooring is well bonded. Clean the surface thoroughly and de-gloss the surface using an abrasive pad to create a suitable sub-floor. Resilient sub-floors must be free from dust, dirt, grease, wax, sealers, oil and any other inhibiting substances. These substances must be removed with the appropriate stripper/removers. Fill low areas with a cementitious leveling compound or latex milk additive latex patch with minimum 3,000 psi compressive strength. Leveling compounds must be tested to ensure they are properly cured and within the manufacturer's specified requirements before proceeding with the installation. Repair and replace loose flooring products. Never sand any resilient flooring that may contain asbestos fibers. Allow the adhesive to dry to the touch, so that there is little or no transfer of the adhesive to the finger before placing the floor covering.

Slabs with a radiant heating system are acceptable sub-floors for installing vinyl tile and plank with the following stipulations. The heating system should be fully operational for a minimum of seven days prior to the installation. The system should be shut down to allow the slab to cool down to room temperature before applying adhesive. Immediately after completing the installation turn the system back on and set to normal temperature. The sub-floor cannot exceed 85°F throughout the life of the installation. Check with the system manufacturer to determine that the system is designed for the desired R-rating for resilient flooring. Failure to ensure proper system design can result in excessive heat damage and tile or plank shrinkage.

Follow application and installation procedures provided with the flooring. Regulations may require that existing flooring material or coatings be tested to determine the asbestos content. Refer to the instructions for removal and handling or resilient flooring published by the RFCI, Recommended Work Practices for Removal of Resilient Floor Coverings.

### **Installation Recommendations:**

1. Flooring and adhesive should be acclimated to the job site conditions for 24 hours prior to the installation.
2. Be familiar with the recommendations and any special instructions from the flooring manufacturer before beginning the installation. Follow the flooring manufacturer's specific recommendations regarding seam sealing.
3. Refer to the information above for specific information regarding sub-floor preparation and site conditions.
4. Spread the adhesive with the appropriate trowel.
5. For use with six foot broadloom carpet (PVC back), solid vinyl sheet flooring, and plank over porous sub-floors\* spread the adhesive and allow to develop tack (10-25 minutes) DO NOT allow the adhesive to "skin-over" or dry.
6. Place the flooring into the adhesive while the adhesive is still wet enough to transfer to the back of the flooring. Roll the newly installed flooring with the appropriate roller. Check the back of the flooring frequently to ensure that adhesive transfer had been successful.
7. For the use with vinyl tile (LVT) or carpet tile over a non-porous sub-floor\*spread the adhesive with the appropriate trowel and allow the adhesive to dry to the touch. When no adhesive transfers to your finger, the adhesive is ready to accept the flooring.
8. For installing specified flooring products over non-porous sub-floors spread the adhesive with the appropriate trowel. Allow the adhesive to dry to the touch. When no adhesive transfers to your finger, the adhesive is ready to accept the flooring. Rolling should take place immediately after the flooring is placed into the adhesive.<sup>1</sup>
9. It is recommended to minimize traffic over the newly installed flooring for at least 24 hours after the installation had been completed. Do not wash or clean the floor for 72 hours after completion of the installation. To replace furniture and appliances use plywood panels to protect the flooring.

### **Specific Technical Data:**

- A. Base: Acrylic Latex Emulsion
- B. Color: Grey
- C. Typical trowels and approximate overages: (depth x width x spacing)
  - a. Porous sub-floors: 1/16" x 1/16" x 1/16" sq notch trowel: 125-150 sq ft/gal
  - b. Non-Porous sub-floors: 1/32" x 1/32" x 1/32" U notch: 200-225 sq ft/gal
- D. Clean-up: Remove wet adhesive with water and mild soap solution. Use AAT-197 Adhesive Remover or other non-flammable "safety solvent" to remove dried adhesive. Dried adhesive may be more difficult to remove; therefore, take care to remove adhesive from the surface of the flooring before it dries. DO NOT apply the solvent directly to the flooring material.
- E. Packaging: 4 gallon pails and one gallon pails (4 per case)
- F. Shelf-Life: One year from date of manufacture in un-opened container when stored at 70°F.

- G. Freeze-Thaw Stable to 15°F. Stability and spreadability can be affected if allowed to freeze. Frozen material should be allowed to thaw at room temperature. DO NOT agitate or stir while frozen.

You can contact the Carpet and Rug Institute thru their Website [www.carpet-rug.com](http://www.carpet-rug.com) or call them at 800-882-8846. The Resilient Floor Covering Institute may be reached thru their Website [www.rfci.org](http://www.rfci.org) or by calling 301-340-8580.

For questions regarding specific installations or usage information contact AAT's Technical Department Monday thru Friday from 8 a.m. to 5 p.m. (EST) at 800-228-4583. Additional information can also be found thru our Website at [www.aatglue.com](http://www.aatglue.com).

\* Determining whether the sub-floor is porous or non-porous is the responsibility of the user. You can check the sub-floor by placing two drops of water in several areas across the sub-floor. The sub-floor is porous if the water is absorbed within a few seconds. If the water beads and is not absorbed within a few seconds the sub-floor is non-porous.

1. Roller specifications: Six foot and carpet tile, 50-75 lbs; solid vinyl sheet, 100 lbs; vinyl tile and plank, 100 lbs.

### **Warranty:**

AAT products are manufacture red to rigid Quality Control Specification and warranted to be free of defects. Defective brought to our attention within one year of manufacture will be replaced at no charge to our customer. Complete warranty information can be obtained by calling 800-AAT-GLUE and requesting a copy or by visiting our Website at [www.aatglue.com](http://www.aatglue.com).



# MATERIAL SAFETY DATA SHEET

## NPCA HMIS

H = 1  
F = 0  
R = 0

Prepared by: Greg Wood

Date: June 1, 2005

## SECTION I

**Manufacturer's Name:** Advanced Adhesive Technologies, Inc.  
**Street Address:** 424 S. Spencer St. Dalton, GA. 30720  
**Emergency Telephone No.:** Chemtrec 1-800-424-9300  
**General Information No.:** 1-800-228-4583  
**Product Class:** Floor Covering Adhesive  
**Manufacturer's Code Identification:** AAT-420  
**Trade Name:** Premium Vinyl Tile and Plank Adhesive

## SECTION II — HAZARDOUS INGREDIENTS

None

## SECTION III — PHYSICAL DATA

**Boiling Range:** Greater than 212° F  
**Vapor Density:** Lighter than Air  
**Evaporation Rate:** Slower than Ether  
**Percent Volatile by Volume:** 40% ± 2%  
**VOC Emission:** 0 g/l (calculated per Ca. South Coast Rule 1168)

## SECTION IV — PHYSICAL DATA

**DOT Category:** Nonflammable  
**Flash Point:** N/A  
**LEL:** Not Known  
**Extinguishing Media:** Water mist, dry chemical, CO<sub>2</sub>, mechanical foam  
**Unusual Fire and Fighting Hazards:** Liquid adhesive will not ignite. Dried adhesive will ignite if heated over 150°C and or exposed to ignition source, producing CO, CO<sub>2</sub>, smoke and hydrocarbons.  
**Special Fire Fighting Procedures:** If dried adhesive ignites, use dry chemical, foam extinguishers, or a fog nozzle. For small fires, CO<sub>2</sub> extinguishers can be used. Use air mask when combating dried adhesive fires.

## SECTION V — HEALTH HAZARD DATA

**Threshold Limit Value:** Non-established  
**Effects of overexposure:** Wet-possible lightheadedness, nausea, and/or mild dermatitis could develop. Dry-None.  
**Emergency and First Aid Procedures:** Flush eyes with ample water. Wash skin with soap and water. If ingested, treat symptomatically and contact physician.

## SECTION VI — REACTIVITY DATA

**Stability:** Stable  
**Incompatibility:** (Materials to avoid)  
**Conditions to avoid:** Closed area with open container  
**Hazardous Decomposition Products:** None  
**Hazardous Polymerization:** Will not occur  
**Conditions to avoid:** Strong acids or oxidants, temperatures below 20°F

## SECTION VII — SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled:** Scoop up excess with shovel, wash remainder with water.  
**Waste Disposal Method:** Landfill or incinerate as per local and state regulations.

## SECTION VIII — SPECIAL PROTECTION INFORMATION

**Respiratory Protection:** None required with adequate ventilation.  
**Ventilation:** Open windows, exhaust fan, open air area  
**Protective Gloves:** May be desirable for people with sensitive skin.  
**Eye Protection:** Safety glasses or goggles.  
**Other Protective Equipment:** None required

## SECTION IX — SPECIAL PRECAUTIONS

**Precautions to be taken in handling and storing:** Store in a cool, dry place. Optimum storage temperature 70°F.  
**Other precautions:** Keep from freezing. Keep sealed when not in use.  
If frozen, allow adhesive to thaw at room temperature. DO NOT agitate or stir until adhesive is completely thawed.  
Shelf Life – One year from the date of manufactured in an unopened container.