

New & Improved!



ARMADA AM-40 Wood Flooring Adhesive

ENVIRONMENTAL/PERFORMANCE:

Armada AM40 Wood Flooring Adhesive formulated with all the features that are necessary for successful installations of engineered wood flooring and domestic species solids.

- LEED compliant, contributes to valuable LEED points
- CHPS 01350 Compliant
- Installer Friendly - *trowels exceptionally easy*
- Wet Lay System saves time and money. Reduces installation time by 50%. Easier and faster than "flashed" system.
- Super aggressive rebond of adhesive reduces hollow and loose spots.
- Provides a much stronger bond than the pressure sensitives being used for wood flooring.
- Unlike moisture cure urethanes, Armada® AM-40 cleans up easily from urethane finishes even when completely dry with Mineral Spirits.
- Solvent-free / Non-hazardous
- Trowels easily.
- Freeze-thaw stable.
- Easy clean up.

PRODUCT DESCRIPTION:

Armada AM40 Wood Flooring Adhesive is the ultimate engineered wood-flooring adhesive, that can be used to install domestic species solids (i.e., oak, maple, hickory, ash etc.). It is formulated with a proprietary formula for installing all wood flooring widths and thickness. Extremely user-friendly, easy to trowel, maintains very good open time and cleans up with Mineral Spirits

Armada AM40 Wood Flooring Adhesive can be used over a wide variety of sub-floors: on or above grade concrete, properly prepared lightweight concrete, terrazzo, plywood, OSB (including AdvanTech OSB), properly prepared sheet vinyl, vinyl tile, ceramic tile and radiant heated sub-floors.

DO NOT USE to install Bamboo, Exotic species, Teakwood.

DO NOT USE this adhesive with Urethane Moisture Barriers. Adhesion failure will occur.

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BATON ROUGE, LA 70815

SUB-FLOOR PREPARATION:

The following are approved sub-floors for using Armada AM40 adhesives and specific preparation procedures for various sub-floors. NOTE: All sub-floors must be smooth within 3/16" in 6' and structurally sound, clean, dry, smooth, and free of dust, wax, oils, paint, curing agents and any other contaminants that would interfere with a good bond. The pH levels of concrete should be between 7 and 9. Follow wood flooring manufacture's guidelines for allowable levels of moisture. Ambient and substrate temperature must be above 50F. Also refer to wood manufacture temperature and % R.H. guidelines.

Concrete: Must be smooth within 3/16" in 6'. Fill all cracks, holes, low spots with Portland based polymer modified cementitious patching compound (or leveling compound and allow to fully cure before applying adhesive. Low spots must be filled and leveled and high spots must be ground to meet these specifications. Sudden dips or high spots in the concrete must be corrected prior to installation, in order to prevent hollow areas after the floor is installed. Armada AM40 can be used on, above or below grade as long as the concrete moisture emissions are within the wood flooring manufacturers' specifications (conduct tests per the wood manufacturer's recommendations). Concrete must be cured a minimum of 30 days.

Terrazzo: Sanding is required to remove all sealers, polish and wax. After sanding, vacuum and clean with Mineral Spirits. Allow the Mineral Spirits to completely dry before starting the installation.

Wood Type Sub-Floors (Plywood, OSB and AdvanTech): Existing squeaks or loose spots in the sub-floor must be eliminated by screws or nailing. High joints or dips must be eliminated by sanding and/or patching prior to installation.

Sheet Vinyl: Non-cushion backed sheet vinyl is an acceptable substrate if properly prepared. It must be securely fastened to the sub-floor with full spread adhesive (perimeter glued sheet vinyl is NOT an acceptable substrate for installing wood flooring). Lightly sand the surface to remove the glaze, vacuum and clean with Mineral Spirits after sanding. Allow the Mineral Spirits to completely dry before starting installation.

Vinyl Tile: All tiles must be securely bonded to the sub-floor. Light sanding is required to ensure proper bond. Vacuum and clean with Mineral Spirits after sanding. Allow Mineral Spirits to completely dry before starting installation.

Radiant Heated Sub-Floors: Prior to installing the wood flooring, lightweight concrete radiant heated sub-floors must be sealed with a heavy coat of acrylic primer to harden the surface. Turn heat off prior to installation. Heat can be turned back on 48 hours after installation.

Lightweight Concrete: Armada AM40 wood adhesive can be used over lightweight concrete or gypcrete provided the substrate is solidified and sealed with primer.

INSTALLATION:

1. The trowel requirements on this label supersede all wood manufacturers trowel recommendations.
2. Always refer to the wood flooring manufacturers for sub-floor moisture requirements and testing procedures before proceeding with the installation. In every instance Armada AM40 adhesive will tolerate more sub-floor moisture than the wood flooring will tolerate. Therefore, for maximum sub-floor moisture, refer directly to the instructions provided with the wood.
3. Do not spread more adhesive than can be covered within 50 minutes.

CLEAN-UP:

Clean up with Mineral Spirits. This adhesive will be easier to remove, if not allowed to completely dry.

CAUTION: Mineral Spirits is flammable. Read and follow all precautions on container label.

WARRANTY:

The adhesive manufacturer has thoroughly field tested AM-40 with the following wood flooring lines and fully warrants the performance of AM-40 with these products:

- ARMADA Engineered Plank
- BRUCE 3 and 5 ply engineered plank and 1/4" - 5/16" parquet tile, including foam back.
- HARRIS-TARKETT Engineered Plank and Longstrip
- HARTCO 3 AND 5 ply ENGINEERED PLANK AND 1/4" - 5/16" parquet tile, including foam back.
- MANNINGTON 3 and 5 ply plank wood flooring
- MIRAGE Engineered Plank
- PREMIER engineered plank
- ROBBINS engineered plank and parquet
- KAHRS plank
- Pan Tim Engineered Plank
- Bauwerk
- Terra
- Columbia
- Award
- ALL 7 PLY Engineered Plank Flooring Products except BAMBOO

The adhesive manufacturer warrants that Armada® AM-40 Adhesive will bond the approved engineered plank and parquet wood flooring products to concrete, terrazzo, sheet vinyl, vinyl tile, plywood and OSB for a period equal to the wood flooring manufacturer's product warranty. In the event the wood flooring manufacturer does not offer a product warranty, the adhesive manufacturer will warrant Armada® AM-40 for one year from the date of installation. This warranty is exclusive to the original purchaser of Armada® AM-40 Adhesive and may not be assigned or transferred.

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2055 N. AIRWAY DRIVE
BATON ROUGE, LA 70815

THIS WARRANTY IS CONTINGENT UPON THE FOLLOWING:

1. Wood flooring products must be installed in accordance with Armada® AM-40 bucket label directions.
2. The installation and application must be in full compliance with all warrantor's instructions, both the adhesive manufacturer and wood flooring manufacturer.
3. The evaluation and approval of a potential claim prior to any replacement work by a BOLICK representative.

EXCLUSIONS:

- Damages arising from flooding, plumbing breakage and similar catastrophes.
- Problems arising from defective wood flooring, misuse or abuse.
- Damages or failures arising as a result of hydrostatic pressure.

In the event of a warranty claim, the adhesive manufacturer will pay for one time replacement of the portion of the installation that is defective. This includes all reasonable materials and labor. The adhesive manufacturer specifically excludes and is not liable for any other damage or loss, including consequential or incidental damage or loss. The adhesive manufacturer is not responsible for workmanship not in compliance with published Armada® AM-40 literature.

The above field testing and warranty does not include foreign produced wood flooring products or the high-pressure (plastic-type surface) floorings without prior testing and authorization from the adhesive manufacturer.

INSTALLING THE FLOOR:

Refer to Armada's recommendation for floor layout and expansion space requirements. After a starting chalk line is established spread a run of Armada® AM-40, usually about a 24" wide run is comfortable to work with. Start installing the floor immediately. Never spread more adhesive than can be covered within 45 minutes.

Armada® AM-40 IS A WET LAY ADHESIVE SYSTEM, DO NOT FLASH OR ALLOW THE ADHESIVE TO PARTIALLY CURE BEFORE STARTING THE INSTALLATION. DO NOT ROLL THE FLOOR. Restrict foot traffic or moving heavy objects back onto the newly installed floor for at least 6-8 hours.

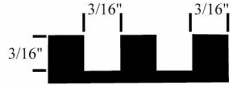
TROWEL REQUIREMENTS AND SPREAD RATES:

For engineered plank up to 5" wide, up to 1/2" thick
Use: 1/4" width x 1/8" depth x 1/4" space square notch trowel provided the sub-floor is smooth. This trowel can also be used for solids 3/8" or thicker.



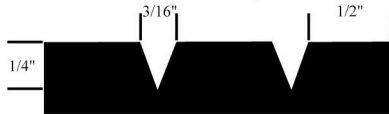
Spread rate approx. 50 sq. ft. per gallon

For engineered plank wider than 5" and thicker than 1/2"
Use: 3/16" x 3/16" x 3/16" square notch trowel.



Spread rate approx 40 sq. ft. per gallon

For Thin Solids up to 3/8", **excluding exotic species, Bamboo and Teak.**
use 3/16" width x 1/4" depth x 1/2" space V-notch trowel.



Spread rate approx 60 sq. ft. per gallon

THE FLOOR DOES NOT NEED TO BE ROLLED.

The above trowel recommendations are critical to a successful installation. The use of a non-recommended trowel would void all warranties associated with this adhesive.

MATERIAL SAFETY DATA SHEET

Page 1 of 3

*Para-Chem[®], PO Box 127, Simpsonville, SC 29681
24-Hour Emergency Telephone: (864) 967-7691*

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: AM-40 Wood Adhesive
CHEMICAL FAMILY: Water Base Adhesive

SECTION 2. HAZARDOUS INGREDIENTS AND EXPOSURE LIMITS

| <u>Chemical Name</u> | <u>CAS Number</u> | <u>% by Weight</u> | <u>ACGIH TLV</u> | <u>OSHA PEL</u> |
|---------------------------|-------------------|--------------------|------------------|-----------------|
| None requiring reporting. | | | | |

SECTION 3. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY: Eyes, Skin, Inhalation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: Can cause slight irritation.

SKIN CONTACT: No effects expected.

INGESTION: May cause discomfort to digestive system.

INHALATION: No effects expected.

CHRONIC: None known.

CARCINOGENICITY: This product contains no ingredient above the OSHA minimum reporting threshold listed as a carcinogen by IARC, NTP, or OSHA.

SECTION 4. FIRST AID MEASURES

EYE CONTACT: Immediately flush with water for 15 minutes. Call physician if irritation occurs.

SKIN CONTACT: Wash with soap and water.

INGESTION: Do not induce vomiting and call physician immediately.

INHALATION: Move person to fresh air.

SECTION 5. FIRE-FIGHTING MEASURES

FLASH POINT (°)F: None.

FIRE-FIGHTING INSTRUCTIONS: Water for dried material. Use protective clothing and self-contained breathing apparatus.

DECOMPOSITION PRODUCTS: Dried material may produce CO, CO₂, H₂O, and hydrocarbons.

BOLICK DISTRIBUTORS
2055 N. AIRWAY DRIVE
BATON ROUGE, LA 70815

MATERIAL SAFETY DATA SHEET

Page 2 of 3

SECTION 6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Place back into container for use if uncontaminated. For contaminated product, scoop material into secure waste container. Dispense sand, sawdust, or vermiculite onto residue, collect and place in waste container. Wash area thoroughly with water.

SECTION 7. HANDLING AND STORAGE

HANDLING: Use good hygienic practices. (Wash hands before eating, using washroom, or smoking.) Product will adhere to skin and clothing. Keep away from children.
STORAGE: Store above 40° F. Freeze-thaw stable up to five cycles at 10° F.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT:

EYE/FACE PROTECTION: Wear safety glasses if contact with material is likely.

SKIN PROTECTION: Wear leather or rubber gloves where contact with material is likely.

RESPIRATORY PROTECTION: Not normally required with good ventilation.

ENGINEERING CONTROLS: Normal room ventilation. Open doors and windows, use floor and ceiling fans to ventilate work area during application.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (°F): 212

SPECIFIC GRAVITY (WATER = 1): 1.17

VAPOR PRESSURE: Same as water.

VAPOR DENSITY(air=1): Same as water.

% VOLATILE BY WEIGHT: 15.5

pH: 8.6

APPEARANCE AND ODOR: Tan colored paste with mild odor.

SECTION 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.

POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: None known

HAZARDOUS DECOMPOSITION PRODUCTS: None.

SECTION 11. TOXICOLOGICAL INFORMATION

No information available.

BOLICK DISTRIBUTORS
2055 N. AIRWAY DRIVE
BATON ROUGE, LA 70815

SECTION 12. ECOLOGICAL INFORMATION

No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with federal, state and local regulations.

SECTION 14. TRANSPORT INFORMATION

For domestic transportation purposes, this product is not designated as a hazardous material by the U.S. Department Of Transportation.

SECTION 15. REGULATORY INFORMATION

TSCA: The components of this product are listed on the TSCA inventory.

SARA TILE III:

Section 311 and 312 Health and Physical Hazards:

| Immediate | Delayed | Fire | Pressure | Reactivity |
|-----------|---------|------|----------|------------|
| [] | [] | [] | [] | [] |

Section 313: Contains no components at or above EPA reporting thresholds.

CALIFORNIA VOC (Volatile Organic Compound) COMPLIANCE:

Solvent Free Product.

SCAQMD Rule 1168: VOC compliant.

SCAQMD Rule 443.1: Grams of VOC per Liter of Material < 8 grams/liter.

Grams of VOC per Liter of Coating < 10 grams/liter.

SECTION 16. OTHER INFORMATION

HMIS RATINGS: Health = 1

Flammability = 0

Reactivity = 0

Personal Protective Equipment = B

Hazard rating scale: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe

Para-Chem, Inc. believes the statements, technical information and recommendations contained herein are reliable. They are given without warranty or guarantee of any kind, expressed or implied.

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PREPARED BY: Robert W. Smith, Jr.