



## Advanced Adhesive Technologies, Inc. Problemsolver® U.R.A. Wood Flooring Adhesive

**Problemsolver U.R.A.**, *Urethane Replacement Adhesive*, is a high solids, water resistant, Tri-Polymer adhesive, formulated for the installation of engineered plank, parquet, acrylic impregnated wood flooring, bamboo, solid shorts and pre-finished solid plank wood flooring. Problemsolver U.R.A. is an excellent adhesive for installing flat milled, solid plank up to one half inch thickness. The Problemsolver U.R.A. is a non-hazardous and VOC compliant wood flooring adhesive. The Tri-Polymer chemistry of the U.R.A. formula minimizes cupping or lifting of plank flooring. The excellent re-bond characteristic helps to minimize call backs from "popping" or "hollow spots." Problemsolver U.R.A. ensures a strong, water resistant bond. The formula is freeze-thaw stable and non-hazardous. This adhesive can be used on most commonly found sub-floors and brands of wood flooring designed for "glue-down" installations.

Prior to the start of the installation the installer must determine that the job-site conditions meet or exceed all applicable standards of the wood flooring manufacturer and AAT. For the best results, we suggest using a National Wood Flooring Association Certified Professional installer. Installation of hardwood flooring should be one of the last jobs of any construction project. The sub-floor should be prepared according to the standards and practices set forth in the document ASTM F-710-11.

*For assistance with specific sub-floors, bamboo products and other exotics please contact our Technical Services Department. DO NOT install solid wood flooring below grade. U.R.A. is not for use with wood flooring manufactured from Kempas. For a copy of the Limited Lifetime Warranty please contact Customer Service.*

### **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 wood flooring has been installed.

Adequate ventilation should be available. The HVAC system for the building should be operating for a minimum of 72 hours prior to the start of the installation. The flooring should not be exposed to extremes of temperature, humidity or moisture. The installation site should have a consistent air temperature of 65°F-95°F and relative humidity levels should be between 35% - 65% for a minimum of 72 hours prior to the start of the installation. The temperature of the sub-floor should be between 65°F-85°F. These conditions must be maintained to ensure long-term success and performance of the wood flooring installation.

Basements 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 flat within 3/16" in 10' or 1/8" in 6'. Please note that popping wood floors or a hollow spot(s) in a hardwood flooring installation is not an adhesive related issue. Rather, these conditions result from the lack of sufficient sub-floor preparation.

Concrete must be dry with moisture emission rates 3 lbs. /1000 sq ft/24 hrs, as measured by the Anhydrous Calcium Chloride Test, ASTM F-1869-10. Lightweight concrete and gypsum cement can only be tested according to the requirements of ASTM F-2170-09. For gypsum cement, densified and lightweight concrete the *in situ* relative humidity should not exceed 75% for any solid or bamboo flooring. For engineered wood flooring *in situ* relative humidity should not exceed 80%. Concrete surface pH is required to be 7-9.0. Before any moisture testing begins, the slab must be cured for a minimum of 30 days and the HVAC system must be operating for a minimum of 72 hours. Concrete slabs on or below grade must have a functioning vapor retarder. The vapor retarder must be in direct contact with the slab and above the capillary break. Fill low areas with a polymer-modified portland cement leveling or patching compound. Leveling and patching compounds must be tested to ensure they are properly cured and within the manufacturer's specified requirements before proceeding with the installation. Mechanical surface profiling is the preferred sub-floor preparation method. Mechanically profile the sub-floor to medium-grit sandpaper texture. Sanding or scouring with open paper or a titanium disk is preferred. Remove curing and parting compounds and other surface hardeners and floor coatings by mechanically profiling, bead blasting or other similar means. Lightweight concrete and gypsum cement must be primed with AAT-570 Acrylic Primer before applying the adhesive.

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. Sanded and other very porous substrates must be primed with AAT-570 Acrylic Primer. 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. Moisture content of wood sub-floors should be below 12% when measured with a moisture meter for wood. Moisture content of the sub-floor and the wood flooring should vary no more than 4%.

Engineered wood flooring may be installed over existing full spread sheet vinyl and vinyl tiles (non-embossed and non-cushion backed) 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. The wear layer must remain intact. Resilient sub-floors must be free from dust, dirt, grease, wax, sealers, oil and any other bond inhibiting substances. These substances must be removed with the appropriate stripper/removers. Vacuum the entire area, mop thoroughly and allow it to dry before proceeding. Existing flooring that has any texture must be leveled with a latex fortified embossing leveler. The substrate must be plumb and flat to within 3/16" in 10' and 1/8" in 6'. Imperfections and irregularities must be corrected before applying the adhesive. Fill low areas with a polymer-modified Portland cement based patching or leveling compound. Leveling compounds must be tested to ensure they are properly cured and within the manufacturer's specified requirements before proceeding with the installation. Repair or replace any loose flooring products before applying this adhesive. *Never sand any resilient flooring that may contain asbestos fibers.*

Wood flooring may be installed over existing ceramic tile and terrazzo floors. All grout joints and broken tiles must be filled with a polymer-modified, portland cement leveling or patching compound. Surfaces should be cleaned and abraded to ensure a proper bond. Ceramic tiles must be securely fastened to the sub-floor. Loose

tiles must be replaced or repaired. Ceramic and terrazzo sub-floors must be free from dust, dirt, grease, wax, sealers, oil and any other bond inhibiting substances.

Wood flooring may be installed over full spread, permanently bonded acoustic cork. Cork thickness should not exceed 1/4" (6mm) and should have a density between 11.4 and 13 lb. /cubic foot. Install cork in accordance with manufacturer's recommendations. Acoustic cork should be pure cork with a polyurethane binder.

Slabs with a radiant heating system are acceptable sub-floors for installing wood floors 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 the 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 wood flooring. Failure to ensure proper system design can result in excessive heat damage and

wood shrinkage. NOTE: Prior to the beginning of the installation the wood flooring, adhesive and sub-floor must be acclimated in an enclosed building with the HVAC operating for a minimum of 72 hours. Wood flooring must be exposed to the air when being acclimated.

#### **INSTALLATION:**

1. Follow wood flooring manufacturer's instructions for layout, requirements for expansion space and any special precautions for installation.
2. Apply adhesive with the recommended trowel. (See below) Allow approximately 10-15 minutes open time before placing wood flooring. Working time for adhesive is approximately 45 minutes. If sub-floor is non-porous a longer open time will be required.<sup>1</sup> Temperature and relative humidity will determine the actual amount of open time needed and the adhesive's working time. A 100% adhesive transfer rate to the wood flooring is required.
3. Occasionally lift a piece of flooring to assure that a 100% adhesive transfer is achieved. If proper transfer is not achieved, remove dried adhesive and re-apply the adhesive with the recommended trowel allowing the appropriate open time before proceeding. The use of non-transferring tape may be required to secure patterns and minimize movement until installation has been completed. Be sure to remove tape immediately after completion of the installation to avoid damaging the wood. Do not use masking tape.
4. Leave appropriate expansion space around the perimeter of the room and at any stationary objects.
5. If plank is bowed or warped, use weights or nails to ensure flooring is in full contact with the adhesive during the adhesive curing process. Excessively bowed or warped planks should be culled prior to installing the flooring.
6. Roll completed installation with a 100lb. roller in a north-south direction and then in an east-west direction to ensure adequate seating into the adhesive.
7. Problemsolver U.R.A. achieves a firm set in 8-10 hours. Light traffic can be allowed after this time. Furniture placement and heavy traffic should be restricted for a minimum of 12 hours.
8. Remove wet adhesive with a damp cloth. If adhesive dries, remove the adhesive with AAT-197 Adhesive Remover. Test AAT-197 on a scrap piece of flooring to ensure solvent does not effect the floors finish.

**TROWEL RECOMMENDATIONS:\*\***

Bamboo plank (5/8"), solid shorts( $\leq$  3/4" thick x 15" long) and 1/2 inch solid plank flooring<sup>2</sup>--  
Maximum dimensions for 1/2 inch solid flooring are 3" wide x 36" long.

**3/16" x 3/16" x 3/16" V notch**  
**35-40 sq. ft. /gal.**

Engineered plank with a thickness of less than 1/2 inch:

**1/8" x 3/16" x 1/8" U notch**  
**70-80 sq. ft./gal.**

Bamboo ( less than 5/8" thickness), solid plank with a thickness of less than 1/2 inch<sup>2</sup>[maximum dimensions for <1/2" solid plank are 5" wide x 72" long] and engineered plank with a thickness 1/2 inch or greater .

**3/16" X 1/4" x 5/16" V notch**  
**50-60 sq ft/gal**

Parquet

**1/8" x 1/8" x 1/8" □ notch**  
**80-100 sq. ft. /gal.**

**\*\*Note: Trowel Notch dimensions are Width x Depth x Separation\*\***

**SPECIFIC TECHNICAL DATA:**

1. VOC compliant formula
2. Clean-Up: Remove wet adhesive with water and mild soap solution. Use AAT-197 Adhesive Remover 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 AAT-197 directly to the flooring material. Test AAT-197 on a scrap piece of flooring to ensure that the solvent does not affect the floor's finish.
3. Packaging: 4 gallon pails and one gallon pails (four per case)
4. Shelf-Life: Minimum of 12 months from date of manufacture in un-opened container when stored at 70°F.
5. Freeze-Thaw Stable to 15°F. Stability and spread-ability can be affected if allowed to freeze. Frozen material should be allowed to thaw at room temperature. DO NOT agitate or stir while frozen

<sup>1</sup> Determining whether the sub-floor is porous or non-porous is the responsibility of the user. You can check the subfloor 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 nonporous

<sup>2</sup> DO NOT install solid wood flooring below grade.

March 2013 [replaces April 2012]



## Safety Data Sheet

Print Date: May 13, 2015

## 1. Identification

- **Product Name:** Problemsolver U.R.A.
- **Product Use:** Wood Covering Adhesive
- **Manufacturer:** Advanced Adhesive Technologies, Inc.  
424 South Spencer Street  
Dalton, GA 30721  
800-228-4583
- **Emergency telephone number:** Chemtrec 1-800-424-9300

## 2. Hazard(s) identification

- **Classification of the substance or mixture**

*This product does not meet the criteria for classification as hazardous under the GHS and 29 CFR 1910.1200*

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA rating (scale 0 – 4)**

Health = 1  
Fire = 0  
Reactivity = 0



- **HMIS-rating (scale 0 – 4)**

Health = 1  
Fire = 0  
Physical Hazard = 0

## 3. Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Adhesive
- **Dangerous components:**  
No hazardous/reportable components

Cas # 7732-18-5	Water	31-48%
Cas # 8030-30-6	VM&P	.01%
Cas # 79-20-9	Methyl Acetate	.005%

- **Trade name:** Problemsolver U.R.A

## 4. First-aid measures

- **Description of first aid measures**
- **After inhalation:** Overexposure, remove to fresh air and seek medical attention.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**  
No further relevant information available

## 5. Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray.  
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substances or mixture:** Dried solids can burn and release toxic fumes and vapors.
- **Advice for firefighters**
- **Protective equipment:** Protective clothing and respiratory protective device.

## 6. Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation
- **Environmental precautions:** Dilute with water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust)  
Wash area thoroughly with water.  
Dispose of contaminated material as waste in accordance with federal state and local regulations.  
Ensure adequate ventilation.
- **Reference to other sections**  
See section 7 for information on safe handling  
See section 8 for information on personal protection equipment  
See section 13 for disposal information

## 7. Handling and storage

- **Precautions for safe handling**  
Avoid prolonged or repeated contact with skin.  
Avoid contact with eyes.  
Wash thoroughly after handling.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by store rooms and receptacles:**  
Store above 40°F. Freeze-thaw stable up to five cycles at 20°F.
- **Information about storage in one common storage facility:** Not required

- **Further information about storage conditions:** Protect product from freezing.
- **Specific end use(s)** No further relevant information available.

## 8. Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

This product does not contain any relevant quantities of materials with critical values that have to monitor at the workplace.

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment (see listings below)**

- **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

- **Breathing equipment:** Not necessary if room is well-ventilated

- **Protection of hands:** Protective gloves

The glove material has to be impermeable and resistant to the product/the substance/ the preparation.

- **Material of gloves:** natural rubber

- **Eye protection:** Safety glasses with side shields

- **Body protection:** Protective work clothing

## 9. Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** Heavy paste

**Color:** Tan to Brown

- **Odor:** Resinous

- **Odor threshold:** Not determined

- **pH-value at 20°C (68°F):** 8.8-9.28

- **Change in condition**

**Melting point:** Undetermined

**Boling point:** 212°F (100°C)

- **Flash point:** Not applicable

- **Flammability (solid, gaseous):** Not applicable

- **Ignition temperature:**

**Decomposition temperature:** Not determined

- **Auto igniting:** Product is not self igniting

- **Danger of explosion:** Product does not present an explosion hazard.

- **Flammable limits:**

**Lower:** Not determined

**Upper:** Not determined

- **Specific gravity at 20°C (68°F):** 1.30-1.40

- **Relative density:** Not determined

- **Vapour density:** Not determined

- **Evaporation rate:** Faster than ether

- **Solubility in/Miscibility with Water:** difficult to mix
- **Solvent content:**
  - Organic solvents:** VM & P .01%  
Methyl Acetate .005%
  - Water:** 31-48%
- **Other information:** California VOC Compliance:  
Solvent Free Product  
SCAQMD Rule 1168: VOC compliant

## 10. Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition/conditions to be avoided:** No decomposition if used according to specifications
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

## 11. Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** May irritate the skin
  - **on the eye:** May irritate the eye
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- **Carcinogenic categories:**

• <b>IARC (International Agency for Research on Cancer)</b>
None of the ingredients is listed
• <b>NTP (National Toxicology Program)</b>
None of the ingredients is listed
• <b>OSHA-Ca (Occupational Safety &amp; Health Administrations)</b>
None of the ingredients is listed

## 12. Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Other adverse effects:** No further relevant information available.



## 13. Disposal Considerations

- **Waste treatment methods**
- **Recommendation:** Comply with current regulations
- **Uncleaned packaging:**
- **Recommendation:** Comply with current regulations.

## 14. Transport information

• <b>Un-Number</b>	
• <b>DOT, ADR, AND, IMDG, IATA</b>	Not regulated
• <b>UN proper shipping name</b>	
• <b>DOT, ADR, AND, IMDG, IATA</b>	Not regulated
• <b>Transport Hazard class (es)</b>	
• <b>DOT, ADR, AND, IMDG, IATA</b>	
• <b>Class</b>	Not regulated
• <b>Packing group</b>	
• <b>DOT, ADR, IMDG, IATA</b>	Not regulated
• <b>Environmental hazards:</b>	Not applicable
• <b>Special precautions for user</b>	Not applicable
• <b>Transport in bulk according to Annex II of MARPOL73/45 and the IBC Code</b>	Not applicable
• <b>Transport/Additional information:</b>	DOT, ADR, IMDG, IATA – Not regulated in transport. Not dangerous according to the above specifications.
• <b>UN “Model Regulation”:</b>	

## 15. Regulatory information

- **Safety, health and environmental regulation/legislation specific for the substance or mixture**
- **Sara**

• <b>Section 355 (extremely hazardous substances):</b>
None of the ingredients is listed
• <b>Section 313 (Specific toxic chemical listings):</b>
None of the ingredients is listed
• <b>TSCA (Toxic Substances Control Act):</b>
All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements,

- **Proposition 65**

• <b>Chemicals known to cause cancer:</b>
None of the ingredients is listed
• <b>Chemicals know to cause reproductive toxicity:</b>
None of the ingredients is listed

- **(DSL) Canada Domestic Substance List**

All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from SDL requirements

• **Carcinogenicity categories**

• <b>EPA (Environmental Protection Agency)</b>
None of the ingredients is listed
• <b>TLV (Threshold Limit Value established by ACHIH)</b>
None of the ingredients is listed
• <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
None of the ingredients is listed

## 16. Other information

Although the information and recommendations set forth in the SDS are presents in good faith and are believed to be correct as of the date of this SDS, AAT makes not representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will AAT or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

**Department issuing SDS:** Environment protection department

**Creation date:** May 1, 2015