



# Advanced Adhesive Technologies, Inc.

## AAT-460 Dual Purpose Ceramic Tile Adhesive Type I Specification Sheet

### Description:

AAT Dual Purpose Ceramic Tile Adhesive 460 is a creamy, white acrylic-based adhesive designed for the interior installation of ceramic or marble tile (see Limitations) over walls, floors and countertops.

### Uses: Interior Substrates (Interior Use only)

**Walls** – Cementitious backer units, gypsum wallboard: water resistant gypsum wallboard (for wet areas): cured portland cement plaster and well cured, dry concrete. **Countertops** – For countertops where a thin bed method is desired, follow TCA Installation Detail C512. **Floors** - For residential installations over the following substrates: exterior grade plywood [APA Grade Trademarked Exterior C-C (plugged) or better; interior floors only; 1 1/8" total minimum thickness; installed in accordance with ANSI AN-3,4], cementitious backer units well cured, only dry concrete on, above or below grade.

### Directions

1. The substrate must be structurally sound, clean, dry and plumb. Remove all grease, sealers, dirt, wallpaper, etc. Scarify all painted surfaces; loose or "squeaky" floor boards should be glued, nailed or screwed down tightly.
2. All tiling materials, room and adhesive should be at a minimum 50°F for 24 hours before and 48 hours after installation.
3. For best results, pre-measure and pre-cut all tile prior to spreading adhesive.
4. Apply adhesive to the substrate with pressure using the flat side of the trowel to promote a good mechanical bond. Then, comb the surface using the proper notched trowel to attain an even setting bed. Press or twist individual tile sheets into adhesive, using care to maintain accurate joint alignment and spacing.
5. Tapping tiles with a rubber faced tapping block to promote 100% coverage of tiles with adhesive, avoiding air pockets under the tile. Proper installation requires a minimum of 1/32" continuous layer of adhesive between the tile and substrate, after tap-in.
6. Apply tiles within 30-45 minutes after spreading adhesive. Do not set tiles after a skin has formed on the adhesive: scrape off dried material and apply fresh adhesive.
7. Remove fresh adhesive from face of the tile with warm, soapy water. Dried adhesive must be removed with mineral spirits or AAT-197 Adhesive Remover.
8. Tile may be grouted as soon as adhesive is set and tiles are held firmly in place, typically after 24 hours for 4 1/4" wall tiles. 6"x6" floor tiles or larger usually require at least 24 hours to set.

**NOTE:** Colder temperatures, high humidity, use of large vitreous tiles (6"x6" or larger), non-breathing back-ups will extend set times.

### Limitations:

Not for exterior use. **Do not use for setting fixtures, green marble or light-colored marble.** For green marble, use 100% Solids Epoxy Mortar. For light colored marble, contact Technical Service for recommendations. Do not use over surfaces such as strip wood floors, tempered hardboard, pressboard, cement asbestos board, particle board, synthetic flooring (Linoleum, asphalt and vinyl tile) or similar unstable substrates. Do not use for underwater application or where hydrostatic pressure, or moisture emission rates are high (not to exceed 3lbs./1000 sq ft/24hr

period). The substrate pH must be in the range of 5-9. Do not use for floor applications of tiles with lugs; use thin set mortars. **Not for use with floor tiles larger than 8'x8'**.

### **Approximate Coverage / Trowel Sizes:**

- **Up to 6" x 6"** included ceramic mosaics, standard wall tile, flat back and vitreous 3/16" x 5/32" v-notch trowel 41-48 square feet per gallon.
- **Walls 6" x 6" to 12" x 12"**  
**Floors 6" x 6" to 8" x 8"** including: ceramic, vitreous, monocottura and quarry 1/4" x 1/4" x 1/4" square notch trowel 25-30 square feet per gallon.
- **Heavy tile (walls only)** including: heavy ceramic, vitreous, natural stone, marble, slate and pavers 1/4" c 3/8" x 1/4" square notch trowel 20-25 square feet per gallon.

Coverages will vary with the absorption of substrate and trowel size.

### **Warranty:**

AAT products are manufactured to rigid Quality Control Specification and warranted to be free of defects. Defective Product 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).





## Safety Data Sheet

Print Date: May 13, 2015

## 1. Identification

- **Product Name:** AAT-460
- **Product Use:** Dual Purpose Ceramic 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% |
|-----------------|-------|--------|

- **Trade name:** AAT-460

## 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 liquid         |
| Color: | white to light beige |
- **Odor:** Acrylic
- **Odour threshold:** Not determined
- **pH-value at 20°C (68°F):** 7.5-9.5
- **Change in condition**

|                |               |
|----------------|---------------|
| Melting point: | Undetermined  |
| Boiling 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):** 1.02 – 1.14
- **Relative density:** Not determined
- **Vapour density:** Not determined
- **Evaporation rate:** Slower than ether
- **Solubility in/Miscibility with**

|        |                                     |
|--------|-------------------------------------|
| Water: | Miscible in water, difficult to mix |
|--------|-------------------------------------|

- **Solvent content:**
  - Organic solvents:** 0.0%
  - Water:** 31-49%
- **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.<br>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**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed

- **TSCA (Toxic Substances Control Act):**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements,

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed

- **Chemicals known to cause reproductive toxicity:**

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

- **Carcinogen 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