



Advanced Adhesive Technologies, Inc. AAT-290 Indoor Outdoor Adhesive Specification Sheet

Description

AAT-290 is specially formulated for the installation of synthetic turfs and grass carpets. AAT-290 is for indoor and outdoor applications where flammable products pose the risk of fire or where solvent fumes are unwanted. This adhesive provides an extremely tenacious, water resistant bond to concrete, asphalt paving surfaces and other common sub-floors. AAT-290 has a fast, aggressive tack and forms a long lasting bond.

Recommended for use with:

AAT-290 is designed for synthetic grass and outdoor carpets with the following backings:

1. Woven polypropylene (ActionBac®, Unibond)
2. Closed-cell urethane foam (Enhancer I, II, III, IV, Durafoam and Uralon)
3. Rubber backings
4. Latex foam
5. Jute
6. Needle-punch
7. Latex unitary



Subfloor Surfaces

1. Exterior: Marine or exterior grade plywood, Interior: APA plywood underlayment
2. Asphalt paving (clean and fully cured)
3. Concrete -in the absence of excessive moisture emissions and alkali (Max MVER 8lbs. /1000sq. ft. /24 hrs; *in situ* RH 90%; pH 7.0-9.0)
4. Fiberglass and Aluminum that are clean and have been lightly abraded to provide for a mechanical bond.

NOTE: *This adhesive is not recommended for pure vinyl backed sheet goods or carpet backings. This adhesive should not be used over asphalt roofing or treated wood. Before beginning installations with backing systems or over sub-floors not mentioned above, please contact AAT Technical Services for recommendations.*

Specific Technical Data

- Latex-resin emulsion
- Open Time: 15-30 minutes (varies with temperature, wind and relative humidity)
- Freeze-Thaw stable: If frozen, allow to thaw at room temperature. DO NOT stir or agitate while frozen. Stability and spread-ability can be reduced if frozen. For best results do not allow the adhesive to freeze.
- Clean-up: wet adhesive with warm water, dry adhesive with AAT-197 Adhesive Remover
- VOCs: 0 g/l (Calculated per Ca. Rule 1168); Solvent Free; Non-flammable
- Shelf Life: One year from date of manufacture in an unopened container
- Sizes: 1 gallon and 4 gallon pail

Typical trowel and approximate coverage:

SMOOTH BACKED CARPETS

3/32 x 3/32 x 3/32 V notch

125 sq. ft. /gal

ROUGH BACKED CARPETS

1/8 x 1/8 x 1/8 U notch

100 sq. ft. /gal

The proper trowel notch will depend upon the sub-floor roughness and porosity, as well as, the texture of the carpet backing. A larger notched trowel may be required to apply the appropriate quantity of adhesive. Maintain the proper trowel notch throughout the entire installation. Follow the carpet manufacturer's recommendations regarding the proper trowel notch to use.

Installation Recommendations:

Prior to the start of the installation the installer must determine that the job-site conditions meet or exceed all applicable standards of the carpet/turf manufacturer and AAT. The sub-floor should be prepared according to the standards and practices set forth in the latest version of document ASTM F-710.

1. Flooring and adhesive must be stored in a preheated building where room temperature should be no less than 65°F for a minimum of 24 hours before the installation begins. Do not use when the substrate or ambient temperature is below 65°F or above 95°F. The temperature must not fall below 40°F once the installation begins and for at least 48 hours after the installation is completed.
2. For indoor installations concrete sub-floors must be dry with moisture emission rates that do not exceed 8 lbs. /1000 sq. ft. /24 hrs. as measured by using the Anhydrous Calcium Chloride Test following the procedures in the latest version of ASTM-F1869. The *in situ* relative humidity of the slab must be 90% or less according to the latest version of ASTM-F2710. The pH must be 7.0-9.0.
3. The sub-floor must be cleaned, free of dust, dirt, grease, wax, paint, oil, curing or parting agents, loose particles or any substance that may affect the bond. Very porous sub-floors must be primed with AAT-570.
4. Allow approximately 10-15 minutes open time before placing the carpet. Temperature, relative humidity and wind speed will affect the tack and working time of the adhesive. Occasionally, lift the carpet to assure that a 100% adhesive transfer is achieved. If used outdoors excessive air movement can accelerate the drying speed of the adhesive. Do not allow the adhesive to skin over before placing the carpet. If the adhesive skins over reapply adhesive before placing the carpet

5. Seal seams and edges with AAT-125 Seam Adhesive to prevent raveling and to maintain the appearance of the carpet.
6. Roll completed installation in north-south and east-west directions to insure proper adhesive transfer and to remove trapped air. Use a 75lb, three section roller. Installations should not receive drenching rain or moisture from other sources for 48 hours after application.

NOTE: We recommend installers follow the guidelines set forth in the latest version of the CRI's *Carpet Installation Standard - 104*. Before placing the carpet, the adhesive must be allowed an open or dwell time appropriate for the carpet backing, jobsite and sub-floor conditions. It is extremely important to maintain recommended notch depth, width and spacing. The proper notch depth is that which will produce adhesive ridges that affect a 100% transfer to both the substrate and the carpet backing to include the inner recesses of the texture of the back.



424 South Spencer Street • Dalton, GA 30721
800-228-4583 • Fax 706-278-6207 • www.aatglue.com

04/22/2016



Safety Data Sheet

Print Date: May 13, 2015

1. Identification

- **Product Name:** AAT-290
- **Product Use:** Outdoor 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%
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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:**

CO₂, 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 light beige
- **Odor:** Resinous
- **Odour threshold:** Not determined
- **pH-value at 20°C (68°F):** 9.3-10.8
- **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
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- **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):** 1.17 – 1.21
- **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:** 31-48%
- **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:**

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

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

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 know 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

• **Carcinogenicity categories**

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