

AUGUST 2011



Part 1 General

1.01 DESCRIPTION

OlyBond® is a dual-component polyurethane adhesive which can be applied with traditional spray foam equipment. OlyBond is used to adhere a variety of board stocks to most roof substrates in both new and re-roof applications. It can also be used to adhere insulation board to insulation board. OlyBond is dispensed in a spray that rises 1/8 to 1/4 inch above the substrate. Place the board stock into the adhesive and walk into place. A chemical cure takes place securing the board in approximately 4 to 8 minutes after application, depending on temperature and weather conditions.

1.02 TYPICAL PHYSICAL PROPERTIES

PHYSICAL PROPERTY	TEST METHOD	TYPICAL VALUES
Density	ASTM D-1622	.46 lb./cf
Compressive Strength	ASTM D-1621	4.59 lbf/in ² @ 13% deflection
Tensile Strength	ASTM D-1623	31.6 psi
Water Absorption	ASTM D-2842	3.9%
Open Cell Content	ASTM D-2856	17.7%
VOC Content	ASTM D-2369	11 g/L
Weight/Gallon (Liquid Components)	A Component B Component	10.32 lbs. 8.52 lbs.
Viscosity (Liquid Components)	A Component B Component	300 cps 500 cps

1.03 PACKAGING

- Package Size:
 - 110 gallon sets
(55 gal. A component; 55 gal. B component)
- Formula* (Part B component):
 - Regular (35°F & up)

*Component A is required for all applications and is not temperature dependent.

1.04 QUALITY ASSURANCE

The OlyBond adhesive must be installed in compliance with the information outlined on the OlyBond Request for Warranty form and approved in writing by an authorized representative of OMG, Inc.

1.05 SUBMITTALS

To insure compliance with the OMG warranty requirements, the following information must be submitted to OMG for review prior to installation, and preferably prior to bid:

- Request for Warranty form filled out with the correct project information.
- Unusual projects such as air pressurized buildings, cold storage buildings, buildings that have large openings (e.g. where the total wall openings exceed 10% of the total wall area on which the openings are located), may require additional review time.

1.06 JOB CONDITIONS

- On retrofit-recover projects, the existing roofing material must be investigated to insure adequate attachment of existing system. All wet material must be identified and removed prior to the application of the OlyBond adhesive.
- Existing Phenolic Insulation must be removed.
- Coordination between trades is essential to avoid unnecessary rooftop traffic.

1.07 STORAGE AND HANDLING

1. Store in a well-ventilated, cool, dry location at temperatures between 45°F and 95°F. Protect from freezing at all times. If properly stored, the shelf life for unopened product is 12 months from the date of manufacture.
2. For long term storage, partially empty containers should be filled with dry inert gas at atmospheric pressure to avoid reaction with moisture. Contamination by moisture or basic compounds can cause dangerous pressure build-up in a closed container.
3. The minimum product temperature before entering the pump should be 72°F. The minimum ambient and surface temperatures should be 35°F.

1.08 APPROVALS

OlyBond is approved by most roof system manufacturers and is Factory Mutual, Florida Building Code, Miami Dade and UL approved.

1.09 FIRST AID

In case of contact with eyes, immediately flush eyes with running water for at least 15 minutes. Call a physician immediately. In case of contact with skin, wash affected area with soap and water. Remove all contaminated clothing and shoes and clean before re-use. If inhaled excessive vapors, remove individual to an area with fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult, oxygen may be given by qualified personnel. Call a physician immediately. If swallowed, give large amounts of water to dilute. If vomiting occurs, give more water.

1.10 DISPOSAL

PMDI in component A may cause pollution. Do not discharge into lakes, streams, ponds or public waters. Spilled material, unused contents and empty containers should be neutralized and disposed of in accordance with local, state and federal regulations.

1.11 WARRANTY

OMG issues a 10 year limited material warranty on all OlyBond purchases. Additional warranties may be available by contacting OMG prior to starting the project and submitting a completed Request for Warranty form.

Part 2 Product

2.01 COMPOSITION AND MATERIALS

OlyBond is a dual-component, reaction cure polyurethane adhesive. The blowing agent is water. OlyBond does not contain HCFC.

OlyBond500 is available in 110 gallon sets of component A (diisocyanate), and component B (resin).

2.02 COMPATIBILITY

1. Roof Decks and Substrates*:

- Structural concrete
- Pre-cast concrete
- Gypsum
- Cementitious wood fiber plank
- Lightweight insulating concrete
- Steel (22-gauge or thicker with approved cross section)
- Plywood (5/8-inch thick min.)
- Various smooth and gravel surfaced BUR
- Smooth and granular surface modified bitumen
- Existing sprayed in place polyurethane foam
- Base sheets
- Most vapor barriers (including asphaltic and fleece-top)

*Some roof decks and substrates may require specific preparation. Contact system manufacturer or OMG for additional information.

2. Roof Insulation and Cover Board:

- Expanded Polystyrene
- Polyisocyanurate
- High Density Wood Fiber
- DensDeck®
- Perlite
- Securock®
- Certain Extruded Polystyrene

Any substrate or insulation not listed must be reviewed by OMG. Call 800-633-3800.

2.03 LIMITATIONS

1. OlyBond is not recommended for use with isocyanurate board stock larger than 4 feet x 4 feet.
3. OlyBond is not recommended for application when ambient or substrate temperatures are below 35°F.
4. OlyBond is not recommended for use during inclement or wet weather.
5. OlyBond cannot be used on wet surfaces.
6. OlyBond cannot be used on large gravel ($> \frac{3}{8}$ inch), dirty or grease-laden surfaces.
7. OlyBond is not recommended for use on any roof deck that shows signs of deterioration or loss of structural integrity.
8. OlyBond is not recommended for use after the expiration date. Contact OMG at 800-633-3800 for options and instructions.

Part 3 Execution

3.01 ROOF DECK CRITERIA

1. The building owner or general contractor shall provide a proper substrate. The structure shall be sufficient to withstand normal construction load and live loads.
2. Defects in the deck must be documented and reported to the specifier, general contractor, roof cover manufacturer and OMG, Inc. The application of OlyBond shall not proceed unless the defects are corrected.
3. It is the responsibility of the roofing contractor to ensure that the existing roof is adequately attached to the building and meets all the requirements for an acceptable surface.
4. Acceptable decks are structural concrete, gypsum, cementitious wood fiber plank, lightweight insulating concrete, minimum 22-gauge steel, minimum $\frac{5}{8}$ -inch plywood.
5. All concrete surfaces must be cured.

3.02 SURFACE PREPARATION

1. **General.** All surfaces must be dry and free of any debris, dirt, oil or grease before applying OlyBond.
2. **Specific Conditions**
 - a. **Steel.** The bonding surface of steel decks must be dry and free of debris, dirt, grease and oil. On new steel, the shop coating/mill oil must be removed. The bonding surface must be free of any cleaner before applying OlyBond.
 - b. **Asphaltic Surfaces (Built Ups and Modifieds).** Non-graveled surfaces must be dry and free of debris, dirt, grease and oil. Graveled surfaces must be free of loose gravel, dirt and debris. A pull test is required to determine the adhesion to gravelled surfaces. Contact OMG for details.
 - c. **Existing Polyurethane Foam.** The surface of the polyurethane roof, including the coating, should be removed with a scarifier (minimum $\frac{1}{2}$ inch). The bonding surface should be blown clean before applying OlyBond.
 - d. **Metal.** OlyBond has excellent adhesion to clean metal. It is recommended that all non-ferrous metals (aluminum, copper, stainless, etc.) be primed to further increase adhesion. Accepted primers include epoxy, chlorinated rubber, and wash primer.
 - e. **Concrete.** All concrete surfaces must be fully cured prior to applying OlyBond.
 - f. **Other.** For other substrates not listed, contact OMG Roofing Products at 800-633-3800.

3.03 APPROVALS

OlyBond is approved by most roof system manufacturers and is Factory Mutual, Underwriters Laboratories, Miami Dade and Florida Building Code approved.

3.04 SAFETY

Before spraying OlyBond, the applicator must observe the same precautions involved with spraying polyurethane foam: wear protective clothing, protective gloves, NIOSH-approved respirator, and protective eyewear. A self-contained breathing apparatus may also be required per OSHA guidelines.

3.05 INSULATION

Review the roofing insulation plan. Polyisocyanurate insulation boards cannot be larger than 4 feet x 4 feet. Multiple layers of boards should use the staggered joint method of application. Compatible insulation other than polyisocyanurate can be 4 feet x 8 feet maximum size.

3.06 PRODUCT INSTALLATION

1. OlyBond is applied with a high pressure spray applicator. The B (resin) component must be mixed for at least one minute. The A and B components should be sprayed at a 1:1 ratio.
2. Use only with ventilation which will keep the vapor concentration below the TLV ceiling limit of 0.02 PPM.

3.07 TYPICAL APPLICATION RATES

The rate of application is typically one gallon per square. This rate provides full coverage and a material rise of 3/4 inch over most substrates. The application rate must be increased for rougher surfaces and will vary depending on roughness. It is recommended that a layer of polyurethane foam be sprayed on rough surfaces prior to application of OlyBond.

3.08 REACTION TIME

TYPICAL REACTION TIME CHARACTERISTICS

TEMPERATURE	PART B FORMULA	TACK FREE TIME	SET UP TIME
35°F & up	R	3–5 min.	10–12 min.

Note: Tack Free and Set Up Time will decrease as temperature increases.

Important: When applying OlyBond, board stock must be placed into the adhesive shortly after it has reached its maximum rise while it is still wet and tacky and before it reaches its tack free state. Maximum rise typically occurs within 2 minutes of application.

3.09 AVAILABILITY AND COST

OlyBond is available throughout the USA and Canada. For availability and pricing contact OMG Roofing Products at 800-633-3800. Deliveries directly to job sites and to specific locations are available.

3.10 PRECAUTIONS

1. **IN CASE OF FIRE:** Use water spray, foam or CO₂. Firefighters should be equipped with self-contained breathing apparatus and turnout gear for protection against PMDI vapors and toxic decomposition products. Avoid water contamination in closed container or confined areas (CO₂-evolved).
2. **DO NOT LEAVE ADHESIVE EXPOSED OR UNPROTECTED.** Polyurethane foam or isocyanurate foam products may present a serious fire hazard if exposed or unprotected. Each person, firm or corporation engaged in the manufacture, production, application, installation or use of any of these materials should carefully determine whether there is a potential fire hazard associated with such product in a specific usage and utilize all appropriate precautionary and safety measures as outline in local, state and federal regulations. When not in use keep stored containers closed.
3. **PPE:** Always wear splash goggles, rubber gloves, respiratory protection (OSHA/NIOSH), protective plastic clothing and rubber boots when handling OlyBond Classic. Vapor may be harmful below odor threshold and should not be breathed by individuals subject to bronchial asthma. Certain susceptible individuals may experience sensitization to vapor or mist. Do not get into eyes, on skin or clothing. Wash thoroughly after handling.



Florida Building Code



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