

**OlyBond500**



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## PRODUCT DATA SPECIFICATIONS

### TYPICAL PHYSICAL PROPERTIES

**Density ASTM D-1622**

Free Rise: 3.2 lb/cf

**Compressive Strength ASTM D-1621**

Parallel: 38 psi @ 6% deflection

**Tensile Strength ASTM D-1623**

35 psi

**Water Absorption ASTM D-2843**

5.1%

**Closed Cell Content ASTM D-2856**

90% min.

R-Value: 3.8 new

**Weight/Gallon (Liquid components)**

"Part 1" Component = 10.32 lbs.

"Part 2" Component = 8.54 lbs.

**Viscosity (Liquid components)**

"Part 1" Component = 300cps

"Part 2" Component = 280 cps

## PRODUCT DESCRIPTION

OlyBond500 SpotShot is a dual component polyurethane adhesive that is applied using the specially designed SpotShot dispensing tools.

**Basic Use:** OlyBond500 SpotShot is used to adhere a variety of board stocks to a variety of roof substrates in both new and re-roof applications. It can also be used to adhere insulation board to insulation board. OlyBond500 SpotShot is dispensed in a semi liquid bead that spreads several inches before rising 3/4"-1" above the substrate. The board stock is placed into the adhesive and walked into place. A chemical cure takes place in approximately 4 to 8 minutes after application, depending on temperature and weather conditions.

### Compatible Roof Decks and Substrates:

- Lightweight structural concrete
- Poured in place structural concrete
- Pre-cast concrete
- Treated plywood (5/8" min. thickness)
- Smooth BUR
- Steel-22 gauge or lower with approved cross section
- Existing sprayed in place polyurethane foam
- Cementitious wood fiber plank
- Base sheets
- Insulating concrete
- Gypsum

### **Compatible Roof Insulations:**

- Expanded polystyrene
- Polyisocyanurate
- HD wood fiber
- Dens-Deck
- Perlite
- Certain extruded polystyrenes

### **Potentially Non-compatible substrates:**

(These and any other substrates not listed above must be reviewed and approved by OMG.)

- Coal tar pitch BUR
- Gravel surfaced BUR

### **Application Features:**

- Chemical cure results in faster set up time
- No pre-drilling into concrete
- Rapid application
- Strengthens system
- Reduces re-roof and construction noise

### **Post-application features:**

- Board stock is securely adhered to substrate
- Lowers potential for building contamination
- Wind uplift resistance is maximized

### **Composition and Materials:**

OlyBond500 SpotShot is a dual component, reaction cure polyurethane adhesive. The blowing agent is water (no HCFC). OlyBond is available in cases containing four cartridge sets with both diisocyanate (Part 1) and resin (Part 2).

### **Limitations:**

- OlyBond500 SpotShot is not recommended for use with isocyanurate board stock larger than 4' x 4'.
- OlyBond500 SpotShot regular formulation is not recommended for application when ambient or substrate temperatures are below 40°F or above 120°F.
- OlyBond 500 SpotShot winter formulation is specifically formulated to be applied between 40°F and 0°F.
- OlyBond500 SpotShot is not recommended for use during inclement weather.
- OlyBond500 SpotShot is not recommended for use on wet surfaces.

- OlyBond500 SpotShot is not recommended for use on any roof deck that shows signs of deterioration or loss of structural integrity.
- OlyBond500 SpotShot is not recommended for use on excessively dirty or grease laden surfaces.
- OlyBond500 SpotShot is not recommended for use after the expiration date. Contact OMG at 1-800-633-3800 for options and instructions.

### **TECHNICAL DATA**

OlyBond is packaged in 4 cartridge sets consisting of Part 1 (diisocyanate) and Part 2 (resin) containers that should be stored between 40°F and 95°F. At these temperatures, the shelf life is 12 months from the date of manufacture. The minimum product temperature before entering the OlyBond500 SpotShot dispenser should be 72°F. The minimum ambient and surface temperatures should be 40°F unless the winter formulation is being dispensed. Surface Preparation: Lightweight Concrete, Structural Concrete, and Plywood; surfaces must be free of any debris, dirt, oil, grease and standing water before applying OlyBond500 SpotShot. Built up (BUR) and modified bitumen roof system surfaces must be free of any debris, dirt, oil, grease and standing water. Contact OMG for details. Steel deck (bonding surface) must be free of debris, dirt, grease, oil and standing water. On new steel, the shop coating must be removed. The bonding surface must be free of any cleaner before applying OlyBond500 SpotShot. OlyBond500 SpotShot is approved by most systems manufacturers and is approved by FM and Miami Dade.

### **Insulation:**

Review the roofing insulation plan. Isocyanurate insulation boards to be attached can be no larger than 4' x 4'. Multiple layers of boards should use the staggered joint method of application.

### **Existing Polyurethane Foam**

The surface of the polyurethane roof, including the coating, should be removed with a scarifier (minimum 1/2"). The bonding surface should be blown clean before applying OlyBond500 SpotShot.

**Metal:**

OlyBond500 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.

**Product Installation:**

Attach the static mixing tip to the top of the SpotShot tube. Insert the tube into the SpotShot dispensing tool and squeeze the handle to dispense at a 1:1 ratio through the static mixing tip and on to the substrate in a semi liquid state. The fluid mixture is applied in rows spaced 12" on center that spread to several inches wide before rising 3/4" to 1 inch. The insulation board is then laid into place and walked in to assure complete adhesion. Curing takes place in 4 to 8 minutes. Typical coverage rates are between 400 to 600 square feet per case. The application rate must be increased for rougher surfaces and coverage rate will vary depending on roughness.

**Reaction Time:**

It is important to monitor the speed of the reaction in relation to the temperature (substrate and ambient) at time of application to ensure a complete reaction. Note the chart below for correct 'Part 2' component selection:

**Typical Handling Characteristics**

(Tack Free and Set Up Time, minutes)

TEMPERATURE	PART 2	TACK FREE	SET UP
40°-90°F	R	8	12
40°-0°F	W	4	12

**Important:** When applying OlyBond500 SpotShot, board stock must be placed into the adhesive while it is still wet and tacky (before it reaches its tack free state). Insulation boards may be placed into the adhesive shortly after it has reached its maximum rise. This typically occurs within 2 minutes.

**AVAILABILITY AND COST**

OlyBond500 SpotShot is available throughout the USA by contacting OMG. Deliveries directly to job sites and to specific locations are available.

**Cost:**

OlyBond500 SpotShot pricing information can be obtained through OMG at 800-633-3800.

**Warranty:**

OMG issues a 10 year limited material warranty on all OlyBond500 SpotShot purchases. A full adhesion warranty is available by contacting OMG prior to starting the project and submitting a completed request for warranty form.

**HANDLING & STORAGE**

Keep containers closed and store in a well ventilated cool dry place. Store between 45°F and 95°F. Protect from freezing.

**CAUTION!!!!**

**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. Wash clothing before re-use. Discard contaminated shoes. If swallowed, give large amounts of water to dilute. If vomiting occurs, give more water. Call a physician immediately.

**ENVIRONMENTAL HAZARD:** PMDI in Part 1 component may cause pollution. Do not discharge into lakes, streams, ponds or public waters. For guidance, contact your regional office of the EPA.

**DISPOSAL:** Spilled material, unused contents and empty containers should be neutralized and disposed of in accordance with local, state and federal regulations.

