



## **System Application Guideline**

### **INTRODUCTION**

This Application Guideline has been published to ensure proper use and installation of **Fitzgerald Formliners BrickMaster** products. It is recommended that all personnel involved with the use of **Fitzgerald Formliners BrickMaster** products read this application guide.

BrickMaster *Elastomeric Urethane* formliners are an extended use product.

### **CARE AND HANDLING**

When not in use, formliners should be protected from moisture and sunlight by being elevated off the ground and covered with a tarpaulin. Most materials degrade when exposed to intense sunlight for extended periods of time. Degradation will affect the life of the liner, and in some cases, cause discoloration of the concrete surface.

In addition, a surface temperature in excess of 140° F may cause permanent thermal distortion and diminish by 70-80% all physical properties of the formliner.

Once attached to the formwork, formliners should be stored on edge to prevent liner damage.

### **TRIMMING ELASTOMERIC FORMLINERS**

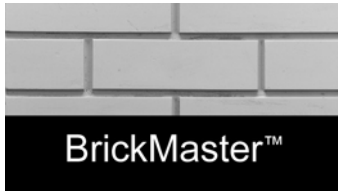
Should trimming of an elastomeric liner be required, the slower the cutting tool used, the easier the liner will be to trim. A crosscut handsaw provides the best trim on elastomeric liners. If a blade type circular handsaw is used, as many as five or six shallow, slow cuts should be made across the path of the trim. Extreme care should be taken to keep the saw blade from binding or from melting the material. Lubricating the blade with WD-40 during the trim may assist the cut.

If the liner is to be butted against a rustication strip or reveal, the blade angle should be set so that the liner is cut at the same angle as the reveal. These operations should be performed with the liner securely clamped to a steady workbench to prevent any “chatter”. Positioning the line of the cut with approximately a 3-degree bow in the liner will also assist the trim.

***Proper ventilation practices must be followed when cutting formliner material.***



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### ATTACHMENT TO CASTING BEDS

*BrickMaster* liners are tagged to identify the concrete side of the liner. The side to be used has grout joint pockets that accept the brick/tiles.

#### Recommended Method to Attach BrickMaster Liners

1. Level and square the formwork so that proper alignment of the liner can be made. Dimensions should be marked so that edges, patterns and joints are square.
2. Working with one sheet at a time, position the formliner against the formwork so that edges, patterns and joints are square.
3. To assist in removal from the casting bed, adequate formliner attachment is critical. (Please refer to the illustration on page two of this procedure.) Attaching the liner should occur from both the front and back sides of the form. Through the front-side, embed  $\frac{1}{4}$ " carriage thru-bolts on 24" centers along all outside edges of the liner. At 18"-24" centers along the face of the liner, embed  $\frac{1}{4}$ " coarse screws directly into the formliner plywood.
4. An alternative, but less of an ensured mechanical fastening method to the above, would be to screw the liner to the wood or steel casting bed formwork with screws spaced approximately 6" to 12" on center around the perimeter and 18" to 24" in the center. Tek drywall screws work well because they are self-drilling and easy to install.

### PLACING CONCRETE

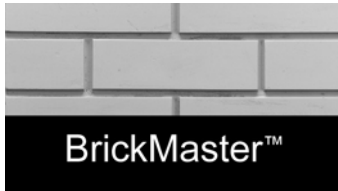
Most urethane formliners cannot withstand a rate of pour in excess of 600-750 psf. Generally, the more texture or relief on the formliner, the slower the concrete must be placed. If a plasticizer is used, the rate of pour may have to be reduced to limit form pressure.

**A test panel using the selected material should be poured simulating actual jobsite conditions and procedures, including: pour rate, height of wall, tie holes, reveals, joints in formliner panels, etc. Actual construction should proceed using the same method and materials throughout the project.**

Architectural concrete should be placed using a pump and an elephant trunk to avoid mix separation, splatter and trapped air. Placement should be in two-foot lifts with no horizontal movement to avoid flow lines in the finished surface.



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### FORM RELEASE AGENT

The application of a good quality, reactive-type form release agent prior to the first use and after each subsequent re-use is critical to the performance of the formliner. Clean the formliner after each pour to remove any loose debris. The form release agent must be worked into the surface of the liner to ensure adequate coverage. Release agents should be sprayed on the liner as close to the time of concrete placement as possible. Minimize exposure to contaminants, dust, etc.

A water-based release agent works well for either single-use or multi-use plastic or extended-use elastomeric urethane formliners. **Do not use solvents or petroleum-based form release agents. They attack both plastic and elastomeric urethane liners.** It is recommended that the form release agent be tested against a small area on the form side of the liner for compatibility. Should the test area become tacky, the release agent is not compatible with the liner material and cannot be used. Consult with your form release manufacturer for specific information, such as coverage rates, drying time and compatibility.

**FITZGERALD FORMLINERS TAKES NO RESPONSIBILITY FOR ANY DAMAGE TO OUR LINERS DUE TO THE IMPROPER USE OR APPLICATION OF A FORM RELEASE AGENT. IF UNSURE OF THE RELEASE AGENT'S COMPATIBILITY WITH ANY OF OUR LINERS, CONSULT WITH THE CHEMICAL MANUFACTURER PRIOR TO USE.**

### BRICK RELEASE AGENT

Brick release agent is not needed when waxed bricks are used.

### STRIPPING FORMWORK

If possible, forms should be stripped within twenty-four hours of concrete placement. This is important because:

**The heat of concrete hydration can degrade formliner material over an extended period of time and can cause sticking.**

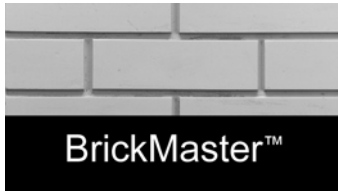
**Concrete will darken the longer the liner is in contact with the formliner surface.**

**When using multi-use liners, the liner life can be shortened if forms are not stripped as soon as is practical.**

Formliners should always be stripped with an equal time interval between lifts. This will result in consistent concrete color in jobs requiring multiple pours.



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Formwork should always be stripped at 90-degree angles to the form if possible

Allow extra time for stripping formwork when formliners are part of the job requirement. The added care in properly stripping formliners is much less expensive than repair of the surface or replacement of the liner.

### **MANUFACTURING TOLERANCES**

Mold Bonded to 0.75" plywood: +/- 1/8 inch (length and width)



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