



Installation Guidelines for Non-Combustible Balmer Thin Cast Mantels and Thin Cast Hearth and Surround Kits

Tools and Materials Required:

1. Power drill
2. Almond-colour paintable latex caulk
3. Shims to level components
4. 2"x 4" x 48" wood blocking to support larger mantel shelves
5. Measuring Tape
6. Fine-toothed hand saw
7. **Non-water-based adhesive** for setting the hearth and securing the filler surround panels.
8. Level
9. 3"-long wood screws
10. High-strength construction adhesive for the mantel components
11. Bracing material

Balmer Thin Cast Mantel and Thin Cast Mantel Kit material meets the requirement for non-combustibility when tested in accordance to ASTM E-136.

Please refer to the respective Balmer Mantel Fact Sheet accessible from our website at www.balmer.com for component dimensions.

Overview

Balmer Thin Cast Mantel Kits contain components for a typical installation, and include: mantel surround components (legs and shelf), surround filler panels (header, legs, and optional riser) and a 3-piece hearth. Surround filler panels (header and legs) are required to support the bearing surface of the inside edges of the mantel shelf and legs against the wall on the firebox side. If surround filler panels and hearth are not supplied by Balmer, please ensure the non-combustible filler panels located immediately around the firebox opening are built-up to a 1" thickness and extend at least 1" behind the inside edges of the mantel surround components. Check with your local building code official for clearance and material requirements between mantel components and firebox opening.

Handle products with care to avoid damage to ornamental surfaces and fracturing of components. Avoid unnecessary contact of exposed faces of components with objects that may scratch or scuff surfaces. Carry components on edge and store in original packaging at room temperature. Mantel components are ideally applied to solid, stable, flat and level substrates such as plaster or drywall. Wood surfaces are typically not stable and may cause cracks in components or filled joints.

Important: Layout and dry fitting of entire mantel is recommended before any adhesive is applied.

Components may be secured using a high-strength **non-water-based construction adhesive** that is suitable for plaster or masonry material and potentially high temperature application. **Non-water-based adhesives may be identified by instructions that require solvent or mineral spirits for clean-up.** Use bracing to secure components tight to the wall until the adhesive sets. Avoid adhesive on exposed component surfaces. Use a finishing nail or a small piece of plastic (shaped like a 'V') to remove excess adhesive at joints. Clean off excess adhesive immediately as required by adhesive manufacturer instructions.

Hearth and Surround Filler Panels Installation

1. Install the middle section of the hearth first (section that has a curved profile on one side only) centered on the firebox opening and set tight to the wall. There is a line cast on the rear edge of the center section that should align with the center of the firebox opening. Apply a generous and continuous bead of **non-water-based adhesive** to ensure contact between the floor and underside of the hearth. The left and right sections of the hearth are designed to interlock with the center section. Grout joints cast in the edges will be maintained when sections are butted together. Align each section following the same recommended installation guidelines. Exposed edges of Balmer Thin Cast surround filler panels and hearth are beveled to eliminate sharp corners.
2. Install surround filler panel legs. Use pencil lines to outline the inside edges of the mantel shelf and legs.

Note: Balmer Thin Cast Mantels require surround filler panels (header and legs) to support the bearing surface of the inside edges of the mantel shelf and legs against the wall on the firebox side, and to cover the wall area between the firebox opening and mantel components. **The cavity behind Balmer Thin Cast Mantel components is designed to allow for the position of the surround filler panels to be adjusted and accommodate a wide range of firebox openings. Cutting is typically required only on the Balmer filler panel legs to achieve the desired height. Use a diamond blade power saw for cutting surround filler panels.**

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Cut surround filler panel legs as required and ensure the cut sides of Balmer Thin Cast filler panels terminate at the hearth and behind mantel components with beveled edges exposed. When set in place, the level height of each filler panel leg must be identical to provide for a level filler panel header. Use shims to level the filler panel legs. Apply a generous and continuous bead of **non-water-based adhesive** to ensure continuous contact between wall and bedding surface of the filler panel legs. Brace filler panel legs securely until the adhesive sets.

3. Install surround filler panel header. **The cavity behind the Balmer Thin Cast Mantel components is designed to allow for surround filler panels to be adjusted and accommodate a wide range of firebox openings.** The Balmer Thin Cast filler panel header typically does not have to be cut, however, ensure the beveled edge is exposed when installed. Apply a generous amount of **non-water-based adhesive** to ensure continuous contact between wall and bedding surface of the filler panel header. Brace filler panel header until the adhesive sets.
4. If applicable, install the surround filler riser. The beveled edge of the riser should be exposed and located on the firebox side. Cut the riser panel so that it fits snug between the surround filler panel legs. The bottom edge may also be cut if a height adjustment is required. Apply a generous and continuous bead of **non-water-based adhesive** to the back of the surround filler panel riser, set in place and brace securely until the adhesive sets.
5. To repair minor chips or cracks, use the Hearth & Surround patch repair powder provided. Follow instructions on the packet. Do not use water; mix only with a liquid cement bonding additive available from your local home improvement store.

Mantel Installation

1. Install mantel legs. **Note:** The mantel legs can be cut at the base to adjust the overall height of the mantel. Install so that each mantel leg overlaps its respective surround filler panel. When set in place, the level height of each mantel leg must be identical to provide for a level mantel shelf. Use shims to level the mantel legs. Apply a generous and continuous bead of adhesive to ensure continuous contact between wall and bedding surface of the mantel legs. Brace mantel legs securely until the adhesive sets.
2. Install mantel shelf last. **Note: Larger mantel shelves** are cast with a cavity in the back to accommodate wood blocking for support. Locate the wood blocking position by offsetting the material thickness at the top of the shelf from a pencil line indicating the top edge of the mantel shelf when set on the mantel legs. Screw wood blocking with wood screws into wall studs for greatest support. Apply a generous amount of adhesive to the bedding surfaces of the mantel shelf and the top of the wood blocking to ensure continuous contact with the wall. Pile adhesive on top of the wood blocking and continuously along its length so that the mantel shelf will settle into the adhesive as it is lowered onto the mantel legs. Use bracing to secure the mantel shelf tight to the wall until the adhesive sets.

For additional security on larger mantel shelves, install two (2) – 3”-long wood screws into the top of the mantel shelf and into the wood blocking below. Locate screw holes approx 1” from the wall and 18” on either side of the mantel centerline. Drill pilot holes first and countersink so that screw heads are located below the surface of the mantel shelf. Mix the filler powder provided with water to create a workable paste. Fill screw holes and tool to a textured finish.

Finishing

If required, fill any gaps around the mantel with a paintable latex caulk, such as DAP® Alex Plus® acrylic latex caulk, almond colour – US product code 18135; Cdn product code 74247. Balmer Thin Cast Mantels are factory treated with a clear water-based sealer, and do not require additional surface treatment.

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