Johns Manville’s MinWool® Water & Fire Block mineral wool insulation provides a vapor-permeable continuous layer of insulation. Along with its fire-resistant capabilities, Water & Fire Block will repel water, which allows for its use in rain screen applications. Johns Manville MinWool® Water & Fire Block mineral wool insulation can be used in Type I-V construction behind a variety of cladding systems including brick, and concrete, and can be mechanically fastened to wood, steel, and concrete substrates.

**Typical Assembly Overview**
1. Interior wallboard and framing structure
2. Cavity Insulation
3. Exterior structural sheathing (gypsum, wood, or other approved material)
4. Air and water barrier
5. Mineral wool exterior insulation board installed using mechanical fasteners
6. Exterior cladding
Recommended Components

- Cavity insulation: fiber glass batt (JM Formaldehyde-free™ fiber glass batts: unfaced, faced or ComfortTherm®); spray-in fiber glass (JM Climate Pro® blown-in fiber glass, JM Spider® Custom Insulation System), spray polyurethane foam (JM Corbond®); mineral wool (JM MinWool®)
- Mechanical fasteners: screw & washer, insulation fastener, plastic cap nails, or other proprietary fasteners
- Stick/impaling pins, adhesive for temporary securement

Safety Equipment Recommendations

- Loose-fit long-sleeved shirt and long-legged pants
- Gloves
- Safety glasses with side shields

Installation Procedure

Installation recommendations and procedures can change based on the mechanical fastening requirements of the exterior cladding system or the design of the building structure. Below are general installation guidelines.

Installation to Exterior Sheathing

Water & Fire Block insulation is installed on top of the air and water barrier. Boards should be butted together with no gaps or voids. If necessary, install stick pins or impaling pins to hold the insulation in place prior to mechanically fastening the insulation to the substrate.

Johns Manville’s Water & Fire Block may be installed with a variety of mechanical fasteners. Fasteners should be appropriate for the type of substrate, capable of withstanding all applied loads, and suitable for use outside in an exterior application. Mechanical fasteners should be spaced no more than 24” apart and should be installed in a manner as to not overly compress the insulation. The fasteners should be placed no less than 3” from the board edges and should penetrate 1½” into the exterior sheathing. Use a sufficient amount of fasteners to hold the insulation in place without having the product pillow, sag, or tear under expected conditions. Refer to the recommended components section for appropriate mechanical fasteners.

Fastener length = thickness + 1.5”
Installation with Exterior Cladding Attachment Systems

Johns Manville MinWool® Water & Fire Block mineral wool insulation is compatible with many types of exterior cladding attachment systems including strapping (wood furring), vertical or horizontal girts, and metal bracket and girt systems. Some common installation procedures are outlined below.

1. Measure spacing to mechanically fasten the cladding attachment system to the studs. This spacing can differ based on the requirements of the exterior cladding, or based on the recommendations of the structural engineer.
2. Install insulation to the exterior sheathing using mechanical fasteners.
3. Install exterior cladding per manufacturer’s guidelines as soon as possible. If the insulation will be exposed to the elements prior to the exterior cladding installation, protect it with a waterproof tarpaulin.

Strapping

If strapping is used to mechanically attach the exterior cladding, install the mineral wool to the sheathing first, then install the straps and exterior cladding.

Strapping

- Interior wallboard
- Studs
- Furring straps
- Air and water barrier
- Insulation
- Exterior cladding
**Brick Ties**

When brick is used as the exterior cladding, first install the brick ties per manufacturer’s recommendations. Then, install the mineral wool insulation by either putting a hole in the insulation for the brick ties, or fit the insulation around the brick ties. Add additional fasteners as needed.
**Mechanical Attachment Systems**

In some cases, the exterior cladding will require a mechanical attachment system. The mineral wool should be installed per the cladding system manufacturer’s recommendations for continuous insulation.

### Storage Recommendations

- Store Water & Fire Block elevated above the floor, ground, and/or standing water.
- If stored outdoors, cover completely with a waterproof tarpaulin.
- For indoor and outdoor storage, adhere to all local building and fire codes including NFPA 230 and NFPA 13.