Master Wall® Insulation Board — QRW1 Polyisocyanurate

Polyisocyanurate Insulation Board is a high performance insulation material that is used to wrap the entire building to keep interior temperatures more consistent. It helps to reduce thermal bridging at framing members and is easy to cut, rasp and place. The insulation board is coated with alkali resistant glass fibers and the large sheets make it easy to install.

**Features & Benefits**

- Continuous Insulation for Wall Assemblies
- Large sheets are easy to install
- Reduces air movement in wall
- Reduces life cycle CO2 emissions
- Controls dew point / moisture condensation in wall

**Technical Data**

- Meets or Exceeds ASTM C1289
- ASTM C1289, Type II, Class 2 or 3
- R-Value (U-Value) at 75°F (9°C): 3.80 (0.26)
- Compressive strength, min., PSI (kPa):
  - Class 2: 20 (138)
  - Class 3: 25 (172)
- Flexural Strength, min., PSI (kPa): 40 (275)
- Water Vapor Permeance of 1.00 in (25.2 mm) thickness, max., perm (ng/Pa.s.m²):
  - Class 2: 4.0 (228)
  - Class 3: 8.0 (457)
- Water absorption by total immersion, max., volume, %:
  - Class 2: 1.5
  - Class 3: 2.0
- Dimensional stability (change in dimensions), max., %: 2.0
- Flame spread, max.: 75.0
- Smoke development, max. 450

**Application Procedure**

Job Conditions - Follow directions on adhesive data sheets. Mechanical attachment of insulation boards may be performed at lower temperatures over a dry surface.

Temporary Protection – Provide temporary and permanent protection to prevent water entry behind the system.

Substrate Preparation – Applications must be to an approved substrate with a maximum variation tolerance of 1/4" in 10'-0" (6.4 mm in 3.05m). Contact Master Wall for approved substrates and recommended attachment methods.

Application

Mechanically fasten the insulation board using Wind-lock ULP 302/402 or approved washer and appropriate corrosion-resistant fastener. Master Wall Inc. must approve other mechanical fastening systems in writing prior to use with the QRW1 Drainage System.

Fastening patterns shall be determined by the requirements of the geographical conditions of the area, local code requirements and the performance of the fasteners, washers and their test results in conjunction with the specified substrate and the thickness of insulation specified for use.

Wood screws shall be corrosion resistant and long enough to penetrate stud or structural members 3/4” (19 mm). For light gauge metal framing, screws shall be corrosion resistant and long enough to penetrate metal framing members 3/8" (9.5 mm). Install fasteners so that the face of the fastener plate is flush or slightly recessed into the surface of the insulation board. Do not puncture the surface of the insulation board with the fastener plate.

The application of the insulation board shall commence at the base of the wall in the drainage track from a level line of support. The insulation board shall be installed vertically. Insulation boards shall be interlocked at the inside and outside corners. Insulation board joints shall be offset from the sheathing joints a minimum of 6”. Insulation board joints shall be offset from the corners of openings. Allow for proper spacing at windows, doors, penetrations and other openings so that sealant systems can be installed in accordance with Master Wall Inc.’s specification, details and the construction documents.

Provide a proper joint through insulation board where expansion joints occur in substrates and where required in the system.

The insulation board shall be butted tightly. Any gaps greater than 1/16” (1.6 mm) between insulation boards shall be filled with slivers of insulation board or approved minimal expanding foam. Adhesive shall not be used to adhere foam when filling gaps. Gaps between insulation boards shall not be filled with adhesive or base coat materials.

Locate expansion joints a maximum of every 30 lineal feet (9 m) as noted in construction documents.

**Limitations**

Insulation board shall not be used in interior applications.