

PWA -104 Lath

As with any cement plaster assembly, the type of lath and attachment of that lath is important. Secure attachment is critical for life safety and avoiding unnecessary penetrations through the water resistant barrier(s). The following are recommendations garnered from experience in installing cement plaster over rigid foam.

Lath comes in many styles and shapes. The PWA 104 assembly is suitable for almost all laths. Lath should be self-furred and maybe expanded metal, welded or woven wire. Rib laths are not recommended. The minimum weight should be 3.4 pounds per square yard for expanded metal and 17 gauge for woven or welded wire laths. 20 gauge is not recommended.

The type of fasteners to attach the lath will largely depend on the type of lath selected. For example, an expanded metal diamond mesh metal lath has fairly small openings and a standard “wafer” head screw will sufficiently engage and hold the lath firmly against the rigid foam. The TSIB has monitored projects where wafer head or “super lathers” were used to attach 3.4 psy metal lath through two-inches of rigid foam and has performed exceptionally well, even through moderate seismic events and several freeze-thaw cycles. For laths that have larger openings, it is important to ensure the faster head engages the lath and securely attaches the lath to the structure. This may require the use of a washer or disc like device. Manufacturers produce plastic type washer specifically designed for being encased in cement that work well. All fasteners used must be corrosion resistant. Self-drilling type fasteners are recommended.

The spacing of the fasteners should approximate six inches on center along framing supports for framing spaced at 16 inches on center. Spacing should not exceed eight inches on center.

The TSIB had several discussions about framing spaced at 24 inches and if the fastener spacing should remain the same as for framing 16 inches on center, as it does for cement plaster without rigid foam. Conversations with engineers confirm that the six inch spacing for 24 inch framing is adequate. However, the TSIB prefers to see a slight increase in attachment when framing is 24 inches on center and settled on approximately four inches on center.

Since many expanded metal laths have a V or furring groove placed six inches on center for attachment of the lath, it is acceptable to use these v grooves as attachment points. For framing 24 inches on center, two additional attachments per vertical stud between the shortest dimensions of the lath (27 inches) is acceptable.

The Length of the fastener shall be at least sufficient length to have three full threads pass through all combined metal. Longer length fasteners are acceptable, provided they do not interfere with other items within the wall cavity.

It is not necessary or typically recommended to seal around fastener penetrations through the foam.

For approval of alternate methods, products or variations, contact your local TSIB office. These are general recommendations not intended for a specific project