CARLISLE COATINGS & WATERPROOFING *Technical Services Bulletin*

Tips for applying liquid membrane air barrier in concrete masonry unit walls covered with drained exterior cladding

Contractors say that when choosing a membrane air barrier for concrete masonry walls (CMU) covered with drained exterior cladding, liquid-applied membranes are clear winners over sheet applied membranes. The reason is clear. Here's why and a few tips for your next job:

- Liquid-applied membrane is much more popular than adhered sheet on CMU due to the rough, irregular surface and imbedded masonry ties.
- If liquid-applied membrane will be installed over CMU, masonry trade must provide surface ready to accept liquid-applied membrane
    - Mortar joints shall be struck flush and shall be free of voids
    - Mortar droppings shall be removed from masonry ties, horizontal projections, ledges and other adjacent surfaces
- CMU is a rough and porous substrate. To adequately cover CMU
    - High-build system required, minimum 40 mils thickness
    - Thin liquid systems do not cover CMU unless block filler is pre-applied to fill pores and prevent thin topcoat from absorbing into CMU.
    - Bubble gun (ASTM E 1186) and Rilem Tube testing will readily show air/water leaks through membrane applied over CMU
- Liquid-applied membranes need accessory materials to provide a complete, continuous installation.
    - Self-adhered sheet membrane – 40 mils composite membrane consisting of 4 mil HDPE or aluminum composite HDPE facer coated with rubberized asphalt or pressure-sensitive rubber adhesive.
    - Surface primer to provide strong adhesion of self-adhered sheet
    - Polyether or synthetic rubber based detail sealant. Caulk gun or trowel-applied.
    - Membrane and accessories are best provided by same manufacturer to assure system compatibility and performance.
- Synthetic polymer liquid-applied systems provide enhanced performance compared to asphalt-based systems.
    - Increased UV resistance
    - Superior flex and elasticity
    - Better fire performance