



SHOTCRETE TECHNICAL BULLETIN

PRECON® PLUS

PRECON PLUS SHOTCRETE TECHNICAL BULLETIN: PRE-APPLIED/UNDERSLAB WATERPROOFING SYSTEM

Shotcrete is utilized in lieu of conventional concrete in many instances to meet project demands. The PRECON PLUS waterproofing system from W. R. MEADOWS is uniquely designed to function and perform with cast-in-place and shotcrete applications. As with any application, care should be taken to maintain the waterproofing membrane/system integrity throughout the construction process.

Establishing a stable and firm foundation is crucial to prevent any shifting or displacement of the PRECON PLUS system during the application of shotcrete. Prior to shotcrete construction commencing, it is advised preconstruction testing and mock-up of PRECON PLUS and shotcrete assembly be constructed for evaluation as per project specific requirements.

Prior to full-scale shotcrete placement, inspect all areas of installed PRECON PLUS system for damage and to ensure all PRECON PLUS system components have been installed per W. R. MEADOWS guidelines and specifications.

Shotcrete must be placed in accordance with ACI 506.2 "Specification for Shotcrete". As stated in ACI 506R-16, "A successful project is dependent on not only an experienced nozzleman, but an experienced contractor and shotcrete crew." Shotcrete construction and quality assurance/quality control are crucial elements for a successful shotcrete application over the PRECON PLUS system.

Due to its unique composition, shotcrete is susceptible to shrinkage cracks, with potential problems arising from suboptimal workmanship, including voids between overspray, excessive rebounding, formation of voids between the shotcrete and the waterproofing membrane, or what is referred to as "shadow voids" behind steel reinforcement. Improperly mixed or porous shotcrete can also pose concerns.

SUCCESSFUL APPLICATIONS OF SHOTCRETE OVER PRECON PLUS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- Installation of shotcrete within 56 days (42 days in hot climates) per ACI 506.2-95.
- Protection of PRECON PLUS membrane from shotcrete overspray during application. This can be accomplished by lightly taping a piece of polyethylene plastic sheeting or similar temporary protective product.
- Confirming all shotcrete wall assembly components (forms, rebar, dowels, rods, etc.) are not interfering with the PRECON PLUS polyolefin facer to make full and continuous contact with shotcrete during installation.
- Avoid the use of sharp items for consolidating shotcrete.
- It is critical to maintain the integrity of PRECON PLUS vertical seams (seldedge edge) during shotcrete placement. Application of PRECON PLUS TAPE from W. R. MEADOWS in these vertical seams (seldedge edge) locations is required. Terminate all the edges of the PRECON PLUS TAPE with a bead of HYDRALASTIC 836 or POINTING MASTIC from W. R. MEADOWS. Allow the HYDRALASTIC 836 or POINTING MASTIC sufficient time to dry; usually 24 hours at 75° F (23.9° C).
- Placement of the shotcrete should take place in a "straight pattern" of shotcrete in these locations, avoiding spraying on an angle directly into the "open" edge of the overlap in advance of "circular" patterns. Contact your local W. R. MEADOWS representative for further information.

PRECON PLUS waterproofing system will continue to perform and excel with the use of shotcrete applications.



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