ABRI Masonry Veneers Construction Best Practices

Even though ABRI veneers offer a multitude of new design opportunities, the constructon of an ABRI veneer wall is not very different than more conventional masonry veneers.

Here are some considerations that will lead to success.

Unit Alignment

Even though the faces have different depths and contours, All ABRI shapes are designed so that the mason simply aligns the flat back side of the units.

Mortar Joints

When different ABRI shapes are used in a pattern together, the mortar joints may be less linear than masons encounter on traditional products. The mason should fully mortar each head and bed joint at the area where the two shapes intersect.

Horizontal Joint Reinforcement and Veneer Anchorage

The type and spacing of joint reinforcement and veneer will depend on ABRI unit type and bond pattern. The following tables summarize the best selection for each:

Soldier Course Bond

Component	Horizontal Joint Reinforcement	Veneer Anchor
Type	2 wire, Ladder Style	Veneer Anchor designed to attach to horizontal joint reinforcement with proper mortar cover and embedment
Dimension	All ABRI unit types: 2" wire to fit 3 5/8" veneer unit joints	At least 1.5 inch embedment; sizing based on anchor manufacturer's recommendation for specific wall condition
Placement	16" Spacing – every course	16" by 16" spacing in courses also used for horizontal joint reinforcement

Running Bond

Component	Horizontal Joint Reinforcement	Veneer Anchor
Type	2 wire, Ladder Style 1 Wire (running bond only)	Adjustable, specific model based on anchor manufacturer's recommendations
Dimension	Wedge Shingle and Convex: 2" (sized to fit 3 5/8" CMU) Concave and Serpentine: Sized to fit 2 5/8" CMU to allow 5/8" cover Option: 1 Wire HJR	At least 1.5 inch embedment; sizing based on Anchor manufacturer's recommendation for specific wall condition
Placement	16" Spacing in Alternate Courses	16" by 16" spacing in courses not used for horizontal joint reinforcement

Stack Bond

Component	Horizontal Joint Reinforcement	Veneer Anchor
Type	2 wire, Ladder Style	Adjustable, specific model based on anchor manufacturer's recommendations
Dimension	Wedge Shingle and Convex: 2" (sized to fit 3 5/8" CMU) Concave and Serpentine: Sized to fit 2 5/8" CMU to allow 5/8" cover	At least 1.5 inch embedment; sizing based on Anchor manufacturer's recommendation for specific wall condition
Placement	16" Spacing in Alternate Courses	16" by 16" spacing in courses not used for horizontal joint reinforcement

Wall Details

With certain ABRI units and bond patterns, it may be desirable to use a course of flat veneer units at interfaces with flashing and drip edges, such as at the base of the wall, at window openings and at the top of the wall. For more information, see the ABRI Design Guide available on the concreteproductsgroup.com website.

Visualizing Laying Patterns

Concrete Products Group offers details showing laying patterns for many patterns.   If you need assistance, please contact us (contact information is below).

Mortar Joint Tooling

As with all architectural masonry, mortar joints should be consistently tooled when they reach thumbprint hardness, so that they have consistent color. Joints should be tooled with a concave joint for weather protection.

Sample Panel

The sample panel is the most important tool for the architect, owner and contractor to communicate the standard for acceptance of the finished work. With ABRI walls, a sample panel is particularly important to demonstrate the desired laying pattern, along with all of the usual criteria that are evaluated.

Cleaning

Cleaning is a key step in the delivery of a successful architectural masonry project. The means and methods for cleaning should be reviewed via a test on the sample panel prior to beginning cleaning of the walls. For more information, please see the CPG Design Note on Cleaning Architectural Masonry Walls available at concreteproductsgroup.com

Questions?

For more information, visit concreteproductsgroup.com or email your questions to info@concreteproductsgroup.com

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