

# Part 13 – Interior & Exterior Finish

## 13.1 – Interior Drywall

Currently all building codes in North America require foam plastics to be separated from the interior living spaces, any habitable spaces and some crawl spaces by a thermal barrier (fire protection) that will remain in place for 15 minutes based on specific testing criteria.

The most common type of interior finish material that will meet the thermal barrier requirements as stipulated by the building codes is a 1/2 inch (12.7mm) gypsum board also known as Drywall®.

The Amvic ICF polypropylene webs provide a horizontal and vertical furring strip to which the Drywall® can be directly attached. The spacing and size of the screws should follow the local building code requirements. Drywall sheets can be installed vertically or horizontally.

For the purpose of meeting the building code requirements regarding Drywall® installation, Amvic has conducted the following tests which are available upon request:

1. Drywall type “S” fine thread and type “W” coarse thread screw pullout and shear in accordance with **ICBOES AC 116** in conjunction with **ASTM D1761**.
2. Room fire test standard in accordance with **UBC-1997** standard **26-3** for protection of interior foam plastics using 1/2 inch (13mm) gypsum board.
3. Fire test in accordance with **CAN/ULC S101-04** and **ASTM E119-00a** “Standard test methods for fire tests of building construction and materials using 1/2 inch (12.7mm) gypsum board.

## 13.2 – Traditional Stucco (Exterior)

Stucco is a cement based wall cladding system that can be used as an exterior or interior finish. Traditionally stucco is applied over wood stud with sheathing, cast in place concrete or masonry substrates. Modern stucco applications have advanced and adapted to other substrate materials including Amvic ICF.

Stucco cladding for insulating concrete forms is mainly composed of metal wire lathe, a base coat and a finish coat. The metal wire lathe is attached to the Amvic propylene webs using approved drywall fine thread or coarse thread screws.



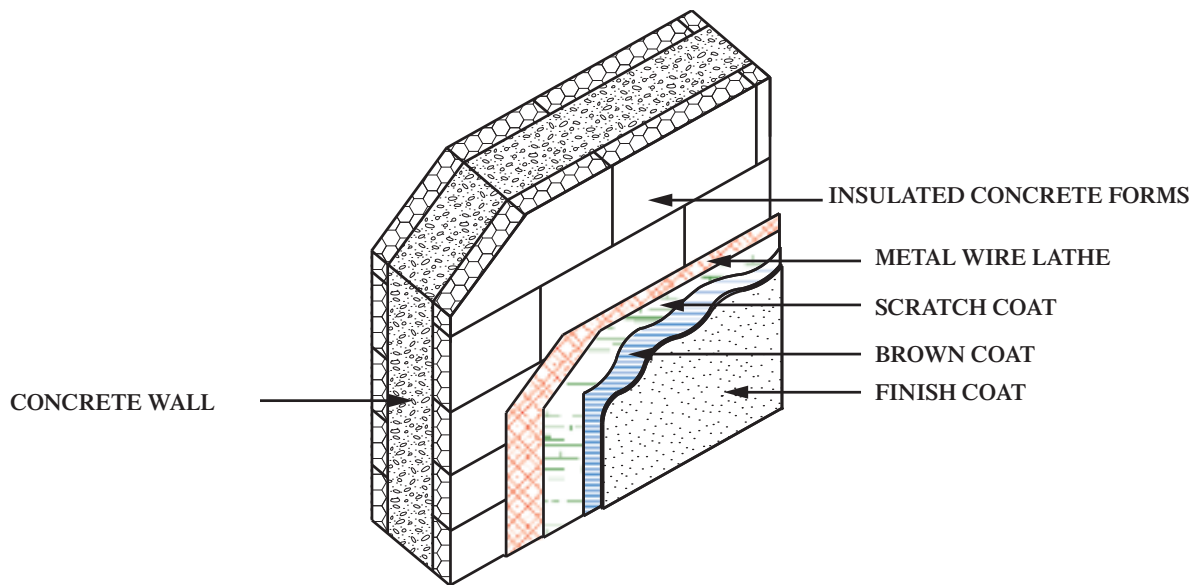


Figure 13.1 – Typical Stucco Application over ICF

Currently there are two main types of stucco used in North America:

### Three Coat Stucco

The stucco base itself is applied in two coats and followed by a third coat. Each of the two base coats is typically  $\frac{3}{8}$  inch (10 mm) thick resulting in a finish stucco base of  $\frac{3}{4}$  inch (20 mm).

The first base coat is known as scratch coat. This coat keys into the metal wire lathe, covering it completely. Horizontal and vertical grooves are introduced in this coat as it cures. The grooves will provide a good gripping surface for the coat to follow.

The second base coat is known as the brown coat. It is keyed into the grooves in the scratch coat and is often smoothed in preparation for the final coat.

### One-Coat Stucco

The stucco base is applied in a single coat or  $\frac{3}{8}$  –  $\frac{5}{8}$  inch (10 – 16 mm) thick. A finish coat is then applied.





### Important Notes!

1. *When applying stucco cladding, always follow the manufacturer's installation and/or technical instructions.*
2. *Check manufacturer details for sealing windows and doors to ensure moisture and seepage control.*
3. *Check local building having jurisdiction for the following:*
  - a. *Use of weather resistive barrier before applying wire metal lath, and*
  - b. *Compliance with any other specific requirements related to stucco applications.*

Stucco finish coats can have a variety of textures and colors and generally produce a pleasing look.



*Figure 13.2 – Stucco Finish*



### 13.3 – EIFS (Exterior Insulation & Finish System)

EIFS (also known as synthetic stucco) is a multi-component exterior finish for walls. The system has traditionally been installed over wood frame substrates with appropriate sheathing. Some EIFS manufacturers have changed the name of their products to distinguish it for ICF application e.g. Dryvit® EIFS products for ICF has changed to **TAFS** (Textured Acrylic Finishing System)

The typical EIFS cladding system consists of:

1. Foam Insulation Layer
2. A polymer base coat
3. Fiber mesh reinforcing layer embedded in the polymer base
4. Acrylic, Textured finish coat

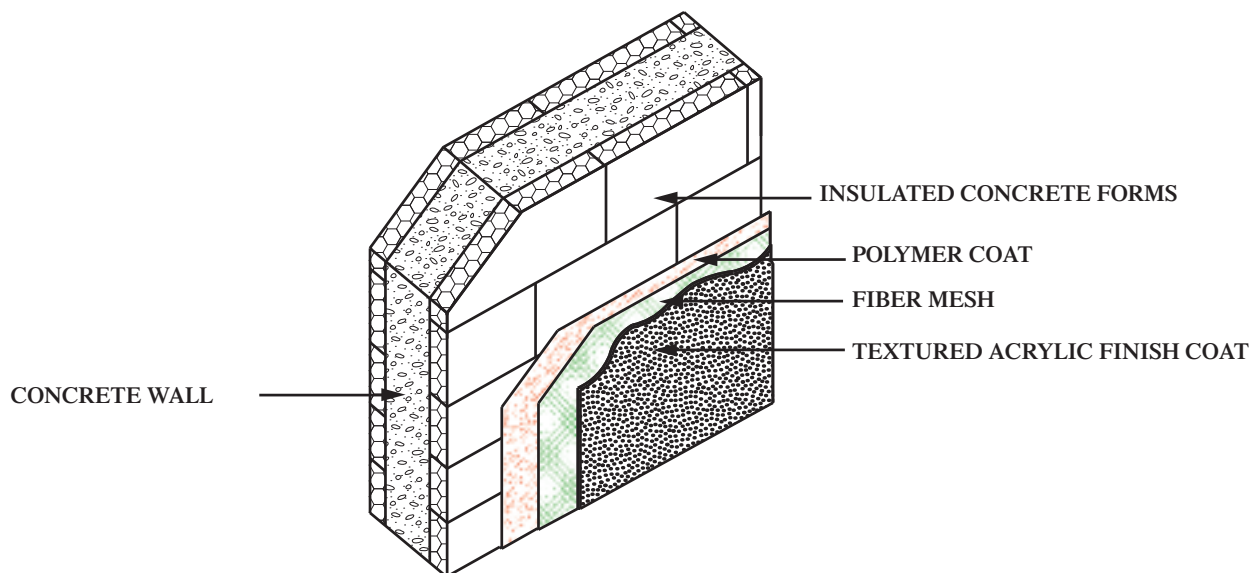


Figure 13.3 – Typical EIFS installation over ICF

The EPS that makes up the Amvic ICF panels is a suitable substrate for applying EIFS cladding directly without the need for an additional foam board.





### Important Notes!

1. *When applying EIFS cladding, always follow the manufacturer installation instructions and inspection guidelines for proper installation.*
2. *Check manufacturer details for sealing window and doors to ensure moisture seepage control.*
3. *Check local building code and ensure compliance with any requirements regarding EIFS applications.*

EIFS wall claddings, like stucco, have many textures and colors that can be applied to the finish acrylic coat to produce the desired architectural effect.



*Figure 13.4 – EIFS finish*



## 13.4 – Anchored Masonry Veneer

Masonry or brick veneer can be applied to Amvic ICF wall in the same manner as regular wood frame or steel stud construction. A ledge support is required to carry the masonry veneer gravity loads (**Please refer to part 9.5 of the manual**). The masonry veneer ties shall be screwed directly to the Amvic polypropylene webs using approved fine thread or coarse thread screws. The horizontal and vertical spacing of the masonry veneer ties shall comply with engineering and/or local building requirements. Amvic has retained a consulting engineering firm to prepare an engineering analysis report on masonry veneer ties under different wind and seismic load conditions. A copy of the report is available upon request and can also be downloaded from our website. (Amvic Masonry Ties Structural Report.)



Figure 13.5 – Brick veneer construction on Amvic ICF



### Code Requirements

Follow the standard building code requirements for:

- a. Weep holes.
- b. Flashing with dripping edge.
- c. Proper material specifications for anchored masonry veneer ties.



## 13.5 – Wood, Vinyl, and Fiber Cement Siding

Amvic ICF can also be finished with exterior siding planks such as wood, vinyl and fiber cement.

For wood and fiber cement siding products, wood or metal strapping will have to be installed on the Amvic EPS surface by screwing directly to the block propylene webs. The wood or fiber cement siding can then be installed over the strapping using approved nails or screws.

Vinyl siding in most cases can be installed by directly screwing into the Amvic ICF propylene webs with no furring straps.



### Note

*Always follow installation instructions given by the siding manufacturer for ICF applications.*



### Code Requirements

*Check local building code requirements for use of weather resistive barrier before installing wood, vinyl or fiber cement sidings over Amvic ICF.*



