2

interior finishes

2.1 Gypsum Board (Drywall®)

The most common interior finishing material used in construction today is gypsum board, also known by the trademark Drywall®. Gypsum board can be applied directly to the Arxx™ Wallsystem using conventional drywall screws, or with drywall screws and EPS compatible adhesives. Application shall comply with the local building code agency having jurisdiction.

An Arxx wall provides continuous solid backing for gypsum board and offers 1" wide fastening strips on the webs at 8" on center, floor to ceiling. When applying gypsum board over an Arxx wall, it is NOT necessary to place the sheet joints on these fastening strips. The sheet joints can be centered between fastening strips.

In general, Arxx walls are flatter and with the full backing between fastening points, there is significantly less expansion, contraction and condensation as compared to wood stud or CMU walls. These factors contribute to easy gypsum board installation, with fewer long term problems such as nail pops, tape de-lamination, and corner bead cracking.

Living spaces, potential living spaces (habitable spaces), and in some cases crawl spaces, all require a thermal barrier (15 minute fire protection barrier) covering the Arxx foam. All North American building codes address this thermal barrier requirement on the interior face of ICF foam plastic insulated wall systems. The building codes recognize standard ½" gypsum board as meeting these requirements, when mechanically fastened to the wall.

Screws and adhesives used for the attachment of gypsum board shall comply with local building codes for sizing and spacing. For a list of adhesives that have been determined compatible for use with EPS, contact your local representative.

2.1.1 Corner Attachment

Attaching interior finishes to Arxx forms is simple and can be accomplished in a variety of ways:

- 1 ½" x 1 ½" metal flange corner as a backer behind the gypsum board
- Arxx Corner Furring Tab
- EPS compatible drywall adhesive; or as a final option,
- 1x3 furring strip recessed into the foam (see Figure 3.6)

Alignment of plastic webs will create vertical fastening strips resembling a stud wall to allow the easy fastening of drywall. Fastening strips are positioned 8" (200 mm) o/c.

Screw sizes and spacing should conform with local building codes. Adhesives approved by the gypsum board manufacturer can be used to secure the board to a Arxx wall where a fastening strap is not available, for example outside corners. It is the responsibility of the installer to ensure the adhesive is compatible with the EPS.

Preference is normally to run the gypsum board sheets horizontally rather than vertically.

Gypsum board that will be used to provide thermal protection as prescribed by building codes shall not be fastened using adhesives alone. Mechanical fastening with screws is required to ensure the gypsum board remains in place for the time allotted by code. Screws and spacing shall meet local code requirements.

2.2 Paneling

Although their use has declined over the years, paneling products are still used today as an inexpensive wall covering material, particularly in basements. Most paneling products, however, do not provide the minimum thermal barrier as required by all building codes in North America in order to be installed over EPS. Therefore, it is necessary to provide the thermal barrier by other means. This is often accomplished by applying gypsum wall board over the EPS to provide the required thermal barrier. The paneling products can then be applied over the gypsum board using the manufacturers' specifications for either nails (ring shaft preferred if fastening to the webs) or compatible adhesive.

Foam plastic shall be separated from the interior of a building by an approved thermal barrier installed in such a manner that it will remain in place for 15 minutes, based on specific testing criteria.

2.3 Other Interior Finishes

At this time, Arxx Building Products is not aware of any finish material that cannot be used in conjunction with Arxx™. Please consult the finish material manufacturers' installation instructions when selecting fasteners for finish materials. The Arxx Building Products technical support team can provide test data for various fasteners used in Arxx forms.

Presently, all model building codes in North America (BOCA, SBC, UBC, IBC, IRC and NBC) require that foamed plastics used in construction be protected from interior living spaces. Typically, the most effective and inexpensive material to use is gypsum wall board.

Check with your local building department to determine if there are areas of your building that are not **required** to be protected.

Notes