

# **Interior and Exterior Finishes**

#### Interior

Workers can screw wallboard and paneling to the plastic webs just as it attaches over frame construction. You can use a foam-compatible adhesive in addition to or instead of screws if you prefer. Check with your local building code if you choose to use only foam - compatible adhesive. Eco-Block recommends using screws, however if you choose to nail, use ring-shank nails for a better grip.



When installing cabinets, it is a good idea to screw plywood, sized slightly smaller than the outline of the cabinets to the ECO This provides and excellent surface for fastening the cabinets. Butt the wallboard directly up to the edge of the plywood.

For very heavy wall-mounted fixtures (like a sink), rout out or hot knife the foam to make room for 2x lumber that you attach directly to the concrete with concrete screws. Later you can screw the fixture to the wood.



#### Exterior

Any nailed or screwed siding (vinyl, clapboard, hardboard) attaches to the ECO-Block webs just over frame construction. Eco-Block recommends screwing with #10 course thread screws, however, if you choose to nail, use ring-shank nails for a better grip. Consult the manufacturer of the siding for specific installation instructions.

ECO-Block can accommodate either a cementious based stucco or an acrylic-based product. Both types are typically reinforced with fiberglass mesh. They are durable and resist cracking in both hot and cold climates. For the proper installation requirements, consult the manufacturer of the stucco product you choose.

For brick or other masonry, insert brick ties through forms and into the cavity <u>before</u> you pour to lock them into the concrete. An alternative method is to secure the brick ties directly to the web with #10 course thread screws.

Below grade, use a dampproofer or waterproofer just as you would over a conventional basement. Self-adhesive membranes work well as do spray-on and roll-on products so long as they are foam-compatible. Products with solvents in them can dissolve the foam, so check with the manufacturer or distributor of the waterproofing product concerning application to EPS, prior to application.



## Tilt-Up Walls

The ECO-Block panel can be easily added to tilt-up wall assemblies during the forming /placing process. Using the panels in tilt-up construction is the economical solution for high performance insulation and sound control (complete with furring/strapping on 8" centers). The versatility of the ECO-Block panel system insures that the design and performance objectives of the tilt-up structure will be achieved.

The flexible ECO-Block panel can be used in many different tilt-up wall assemblies. It will increase the thermal performance and Sound Transmission Classification, while reducing the construction time (and cost) on most tilt-up structures.

Tilt-Up Methods:

## **Exterior Insulation**

ECO-Block panels are placed in the tilt-up forms, prior to placement of steel and concrete. Having the panels on the exterior of the building increases the thermal performance of the assembly by a magnitude of 0.5 over insulating the interior surface of the tilt-up panel. In addition, having ECO-Block panels on the exterior of the structure allows for the immediate application of various stucco finishes. This reduces the amount of time needed for completion.

## **Interior Wet Set:**

ECO-Block panels can be "wet set" on the concrete tilt-up wall panel, after concrete has been placed. This provides insulation and "nailing strips" on the interior of the building after the tilt-up panels have been erected. In addition, this method saves the labor needed to "finish" the interior concrete surface.

### **Combination Method:**

The third method is to combine both of the previously mentioned assemblies by laying the ECO-Block interior panels within the tilt-up forms, placing the concrete and then "wet setting" exterior panels on top. This assembly will result in a structure that is ready for stucco on the exterior and wallboard on the interior. The STC and thermal performance of this assembly will equal that of standard ECO-Block construction.



To construct an insulated tilt-up Wall by the first method, first lay the panels down on the ground and frame them with wood. Prior to the concrete pour, place rebar using four-inch connectors. Snap the connectors onto the webs in desired locations, then insert the rebar horizontally into the connectors and wire to the connector every four to six feet.



This way, the four-inch connectors serve the same function as a rebar chair. The distance between the top rebar slot on the connector is exactly 2.5" above the surface of the EPS or 1.5" below the surface of the four inches of concrete, which is the engineering required by the code.

Pour concrete and allow to cure before tilting the wall section. The result is four inches of concrete on the inside and 2.5" EPS insulation on the outside. The furring strips are already in place. The wall is immediately ready to finish as required. The result: a finished wall with R-11 insulation.



