

PRECAST CONCRETE INSULATED SANDWICH WALL PANELS

High performance precast concrete insulated sandwich wall panels provide a versatile, efficient, attractive and resilient building enclosure system. PCI-certified precast concrete insulated sandwich wall panels are also very economical - especially when designed and constructed as a load-bearing element.

Insulated sandwich wall panels are barrier or face-sealed systems that can be used as non-load-bearing or load-bearing structural elements. They are composed of two concrete wythes (layers) separated by a layer of rigid foam board insulation.

DESIGN CONSIDERATIONS

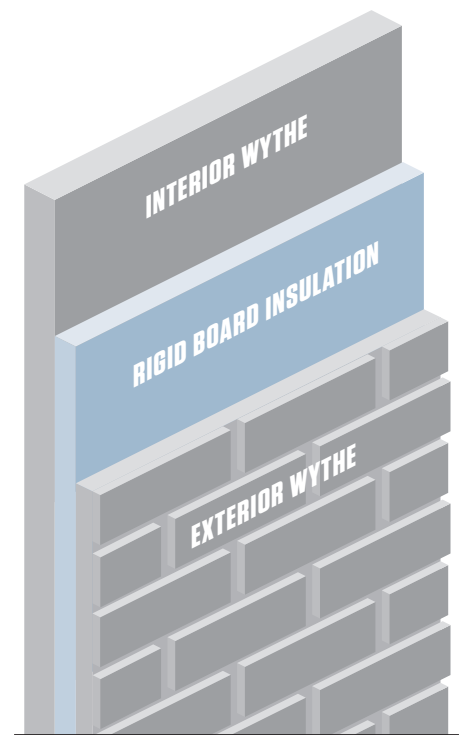
- Insulated sandwich wall panels may be designed as composite where both concrete wythes act together to resist applied loads, non-composite where both wythes act independently with the structural wythe being the thicker of the two, or partially composite.
- Minimum wythe thickness for flat panels is generally 3" and both wythes are generally prestressed for better crack control and panel durability.
- Insulation types consist of expanded or extruded polystyrene or polyisocyanurate.
- Insulation is continuous from top to bottom and side to side of the panel. Its thickness can vary depending upon desired panel R-Values.
- Wythe connectors are typically non-metallic to reduce or eliminate thermal bridging.
- Joints between panels are filled with a high-quality elastomeric sealant and closed cell foam backer rod to create a barrier, face-sealed wall system.

APPLICATIONS

- Insulated sandwich wall panels provide economical, attractive and energy efficient hard walls and can be used with virtually every type of structure.

ADVANTAGES AND BENEFITS

- A wide variety of architectural finishes are available including sandblasted, exposed aggregate, acid-etched, painted, thin brick and stone veneers.
- Insulated sandwich wall panels provide superior thermal performance and energy savings.
- Since they can be relocated to accommodate future building expansion, using insulated sandwich wall panels insures future design flexibility.
- Precast concrete's inherent thermal mass properties increase the insulated sandwich wall panel's effective R-Value.
- Precast concrete is inherently fire-resistant – an added benefit of building with insulated sandwich wall panels.
- Precast concrete insulated sandwich wall panels meet or exceed all National Energy Code requirements.
- Insulated sandwich wall panels can provide a highly durable interior



- concrete finish - making it ideal for manufacturing or warehouse facilities.
- Insulated sandwich wall panels provide continuous insulation, and air and vapor barriers in one highly efficient enclosure system.
- Insulated sandwich wall panels provide an interior concrete finish that can be ready for painting with no furring, insulating and drywalling required.