



KEY BENEFITS

- Aesthetic flexibility, for both materials and finishes
- Resilient and durable materials
- Reduces the load on the structure
- Highly energy-efficient system with lower operating costs
- Sustainable design, contains 20% less carbon than traditional concrete systems
- Integrates well with adjacent systems
- Windows pre-installed in the factory
- Single point of contact for the building envelope warranty

WHAT IS INFINITE FACADE?

Infinite Facade is a pre-engineered facade system using precast concrete or GFRC as an exterior cladding, including an array of options for exterior finishes, with high-performance HFO spray foam insulation, structurally attached to a durable steel frame, manufactured fully off-site with high-performance window systems, and delivered to the jobsite with predesigned connections to the primary building structure.

It is a lightweight, economical, high-performance, exterior wall system with extraordinary design versatility that combines proven design components.

WHAT IS INFINITE FACADE 75?

Infinite Facade 75 is our most cost-effective system, which utilizes punched window openings surrounded by your choice of opaque finishes. The connections and frame are covered at the opaque head and the sill of the panel and horizontal joint locations are within the edge of slab depth at every level.

WHAT IS INFINITE FACADE 85?

Infinite Facade 85 allows punch openings to align with the top of the panel and minimizes the occurrence of horizontal joints. Connections and frame are covered by opaque materials at the sill of the panel and horizontal joint locations are at the top of the windows at every level - thus eliminating the horizontal joint at the slab. Approximately 6-in. extra vision from the interior and can increase the total window height.

WHAT IS INFINITE FACADE 100?

Infinite Facade 100 eliminates ceiling joints at the floor line and provides full height continuous exterior glass and can accommodate more translucent glass from the interior. Floor to floor windows that are bordered on two sides by concrete with applicable opaque finishes or GFRC. The top and bottom connections and frame are covered by spandrel glass. Infinite Facade can utilize Inf 75 or 85 frame and connection configurations to maximize extra vision from the interior.

WHAT MATERIALS IS THE INFINITE FACADE MADE OF?

The Infinite Facade is made with an exterior skin of GFRC or thin-shell concrete structurally attached to a steel frame. The interior side of the exterior skin has high-performance HFO spray foam insulation. The Infinite Facade also includes high-performance window systems with insulated glass and aluminum extrusion frames.

HOW COMPETITIVE IS INFINITE FACADE IN COST COMPARED TO OTHER EXTERIOR CLADDING SYSTEMS?

Infinite Facade remains competitive with other types of cladding over the years due to the lightweight and flexible design compared to similar and traditional methods. One of the most important aspects of cost control is designing the facade to be prefabricated and using repeatable features to keep both forming and labor costs low.

IS THE INSULATION SAFE AND SUSTAINABLE?

Infinite Facade uses HFO spray foam insulation. HFOs are non-toxic. They do not degrade the ozone layer. They are non-flammable. They are not considered a volatile organic compound (VOC) by the Environmental Protection Agency (EPA). The Infinite Facade global warming potential is reduced by over 75 % (0.78) compared to HFC insulation.

HOW DO YOU SEAL BETWEEN THE PANELS?

Weatherproofing the Infinite Facade system is a well-understood and traditional application used for over 60 years of successful installations. This process is taken care of by caulking contractors that use the most up-to-date methods and sealants on the market.

IS THERE AN AIR BARRIER?

GFRC and thin shell concrete skin are natural air barriers and meet the strictest requirements for exterior wall air barriers. Sprayed polyurethane closed-cell foam with a minimum density of 1.5 pcf (2.4 kg/m³) at a minimum thickness of 1½-inches provides the vapor/air barrier.

IS THERE A VAPOR BARRIER?

The HFO spray foam insulation is an effective vapor barrier on the warm side of the Infinite Facade panels.

HOW DEEP CAN THE REVEALS BE IN A PANEL?

The typical maximum depth of reveals is 3/8-in. They can vary in width although most common is 3/4" or 1".

HOW DEEP AND WHERE ARE SKIN BREAKS IN A PANEL?

The recommended width of skin breaks is 1". Typically located at window reentrant corners. The typical max span of any given skin is 20'-0".

HOW LARGE CAN THE PANEL RETURN BE?

The EOP returns can be a maximum of 12-in., max returns at windows is 8" with 6" exposed.

WHAT IS THE TOTAL SYSTEM DEPTH?

For thin-shell concrete, the total system depth is 8 1/4-in., (2.25-in. skin, 2-in. gap (or foam), 4-in. HSS), and greater with skin articulation. For GFRC: 8-in., and increases with skin articulation.

HOW DEEP CAN THE WINDOW RECESS BE IN A PANEL?

The maximum recommended projection is 8-in. deep. 6" exposed (2" required for joint filler)

WHAT LOADS CAN BE APPLIED TO THE INFINITE FACADE PANEL FOR CANOPIES AND AWNINGS?

Canopies and awnings are not currently part of the Infinite Facade design and would need to be engineered. Only minimal loads can be applied to the Infinite Facade panel itself. Larger loads must be transferred to the structure by penetrating the Infinite Facade panel and attaching it to the building superstructure.

CAN INFINITE FACADE SPAN FROM FLOOR TO FLOOR?

Yes, it is designed to span from floor to floor for any CIP, CLT, or steel-framed building.

HOW DOES INFINITE FACADE CONNECT TO OTHER WALL SYSTEMS?

Yes, Infinite Facade is compatible with most other types of systems made from metal, brick, and glass and is connected using typical joint interfaces and expansion joint systems.

HOW IS INFINITE FACADE ATTACHED TO THE BUILDING?

Infinite Facade is attached to the building perimeter using pre-engineered gravity and lateral connections at the floor slab or steel/concrete frame.

HOW IS THE GFRC OR 2.25-IN. THIN-SHELL PRECAST ATTACHED TO THE STEEL FRAME?

The steel frame is attached to the exterior facade by using plated steel pin anchors welded to the frame and embedded in the GFRC or precast.

WHAT IS THE DEAD LOAD OF THE INFINITE FACADE PANEL?

40 PSF (MAX). When including typical finishes and WWR we typically are in the 25-32 range for concrete and 18-25 for GFRC.

WHAT DOES AN INFINITE FACADE PANEL WEIGH COMPARE TO A CONVENTIONAL PRECAST PANEL?

The average conventional precast panel weighs around 75 pounds per square foot, so an Infinite Facade panel is about half the weight of a conventional precast panel.

CAN INFINITE FACADE BE DESIGNED IN LOAD-BEARING WALL APPLICATIONS?

Infinite Facade panels are not designed to be a load-bearing system.

HOW MANY WELDS NEED TO BE COMPLETED ON SITE AND PRIOR TO RELEASING THE CRANE FROM THE PANEL DURING ERECTION?

The Structural Engineer determines the number of welds required for each project. On-site welds are kept to an absolute minimum to reduce schedule and costs.

WHAT IS THE FRAME TYPE?

The frame is comprised of Steel HSS tubes that form a moment frame.

WHO INSTALLS THE INFINITE FACADE PANELS?

Infinite Facade is installed by PCI-qualified (Precast/Prestressed Concrete Institute) erectors or those who have a minimum of 5 years of experience installing Infinite Facade architectural precast concrete panels.

WHAT IS THE TIME FRAME FOR PRODUCTION, DELIVERY AND INSTALLATION?

Production of an average project (40,000 square feet of exterior cladding) is approximately 12 weeks after the start of shop drawings. Delivery of Infinite Facade to the project site begins once 80% of the project is produced. Installation is usually completed approximately 6 to 8 weeks from the start of installation.

IS INFINITE FACADE NFPA 285 COMPLIANT?

Yes, Infinite Facade meets the ratings required by codes for exterior firewalls flame spread for NFPA 285. A copy of the NFPA 285 acceptance letter is available upon request.

WHAT CODES DOES INFINITE FACADE MEET?

Infinite Facade meets IBC, ACI, AISC, PCI Design Handbook, CRSI Manual of Standard Practice, ASTM/ANSI/AWS, CBC, California Title 24, and most local or state building codes.

WHAT FINISHES CAN I USE?

More than 100 different options are available, and our Finishes Guide is available upon request, including multiple textures, materials, and colors. All architectural precast industry finishes are available.

WHAT IS THE STANDARD SIZE OF AN INFINITE FACADE PANEL?

The typical size is 10-feet by 30-feet.

WHAT'S THE LARGEST INFINITE FACADE PANEL I CAN DESIGN?

Transport restrictions result in the largest panel being 10-feet by 35-feet. Panels up to 13-feet by 35-feet can be produced but cause an increase in the shipping costs.

WILL INFINITE FACADE SUPPORT HIGH-RISE BUILDING WINDOW CLEANING?

Yes, the cleaning equipment must be secured to anchors in the roof or other suitable points to avoid vertically loading the panels - panels can support horizontal loads but cannot carry vertical loads produced by some window cleaning machines.