

## PRECAST CONCRETE COMPUTES FOR DATA CENTERS

The goal of a data center is to keep your information safe and secure. Stringent design requirements consider conditions like hurricanes, fire and other forces of man or nature, and our data center products and solutions provide the ultimate in quality, security and safety. Precast concrete, a highly efficient, practical method of concrete construction makes beautiful data centers possible at a cost that rivals even the most utilitarian industrial building. Understanding some of the benefits of precast concrete will assist designers in evaluating the impact of precast concrete on the environment and the building operation.

DESIGN CHALLENGES	PRECAST CONCRETE SOLUTIONS
Create specialized spaces for technical processes and equipment.	Precast concrete components can provide the design flexibility and durability needed to provide added HVAC infrastructure, such as larger clearances in shafts, ceiling spaces, plenums, and chases. They can also help meet needs for floors that are accessible.
Eliminate vibration that could disrupt sensitive experiments.	Precast concrete's solid mass and structural support for HVAC and other equipment helps ensure that rooms are not impacted by equipment operating elsewhere.
Design clean rooms that can remain completely free of dust or particles.	Treatments are available to help precast concrete panels ensure that no outside particles interfere with clean-room research. Precast concrete systems can also provide the large open-span spaces that are required for mechanical equipment to filter air, while providing the vibration resistance needed to ensure that sensitive equipment performs properly. The panels can be rubbed with mortar after casting to fill every pin-sized air void before the final finish is applied, ensuring a solid surface with no microscopic ledges to hold contaminants. They can also be treated to fight bacteria growth and resist mildew.
Provide a durable interior environment that can be kept clean and withstand harsh chemical treatments.	Precast concrete insulated sandwich wall panels provide a durable, finished interior that can withstand cleaning, as well as high humidity that would corrode metal. They can also be designed to achieve a maximum four-hour fire rating to help contain accidents.
Provide a secure enclosure that protects research and prevents disruptions.	Precast concrete's high durability and impenetrability ensures no security breaches through wall penetrations. Inherently noncombustible composition, along with compartmentalization designs, contains fire to specific areas and allows for detection, evacuation, and suppression. The material also provides strong resistance to harsh weather.
Minimize operating costs to keep budgets under control.	Insulated sandwich wall panels offer an energy-efficient façade that aids in controlling heating and cooling costs. A total precast concrete system expedites construction, minimizes the number of component pieces by combining structural and architectural attributes into a single piece, and offers single-source responsibility from the precaster.
Meet the area's seismic requirements.	Precast concrete systems, using proven connection technology, allow precast concrete components to be used in all seismic zones.
Expedite construction to provide faster return on investment.	Component casting begins when the shop drawings are complete, ensuring that erection begins as soon as the site is prepared. Year-round, all-weather construction ensures that schedules are met.

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