

Environmental & LEED Attributes of Precast Concrete Veneer

The cement used in concrete is made of natural materials such as limestone and clay. Most cement plants rely on nearby limestone quarries. The cement industry has made significant progress in reducing carbon dioxide emissions and energy usage in the last 30 years and is continually striving to make further reductions.

In addition, cementitious material used in concrete often contains manufacturing byproducts such as fly ash and blast furnace slag that would otherwise find their way to a landfill. Waste water can be recycled for use in manufacturing. Aggregates used in the manufacturing of precast concrete veneer are generally extracted and manufactured regionally.

Concrete is a very strong and durable material, which is a significant sustainable attribute. It will not rust, rot or burn and has a service life of up to 100 years.

LEED for Homes, measures a buildings performance based on eight categories: site selection, water efficiency, materials & resources, energy & atmosphere, indoor environmental quality, location & linkages, awareness & education, and innovation. Within each of these areas, projects earn points toward certification.

Precast concrete veneer is a smart choice for projects applying for LEED certification. Most of the credits shown also have additional innovation in design points that are tied to exemplary performance of the credit listed.

LEED for Homes Scorecard

Credit	Description	Credits Available	Comments
ID credit 2.1	Innovation & Design: Durability Planning	1	Precast has been proven to have a service life up to 100 years, and prevents water infiltration do to its high water/concrete ratio.
SS Credit 1.2	Site Stewardship: Minimize Disturbed Area of Site	1	Precast concrete is plant cast and delivered to the site ready to install so it requires very minimal site disturbance to install.
SS Credit 5	Site Stewardship: Pest Control	2	Precast concrete is resistant to all insect attacks and qualifies as pest proof.
EA Credit 1.2	Energy & Atmosphere: Optimize Energy	34	Precast concretes

	Performance		thermal mass will absorb heat during the day and release it at night when needed to reduce heating/cooling load.
MR Credit 2.2	Materials & Resources: Environmentally Preferred Products	8	Precast concrete that is locally produced will provide points for each application.
MR Credit 3.2	Materials & Resources: Construction Waste Reduction	3	Being plant cast and delivered to the site ready to set creates minimal to zero amounts of onsite waste material.