

UroBlock™

Innovative, energy-efficient building system ideal for coastal regions

It may not seem the most logical of ideas, but for Chester Williams of Seattle, it was one whose time had come. In pursuit of his dream to build a resort village in Belize, Central America, Williams sought a way to prevent the damages to his buildings that would eventually be wrought by a coastal hurricane. As Williams is prone to think “out-of-the-box,” he stumbled upon an idea that led to the invention and patenting of a revolutionary new building system he terms UroBlock™.

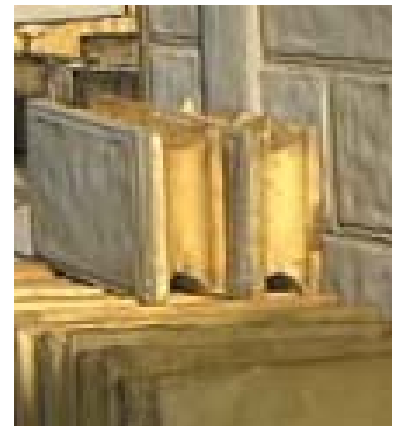
UroBlock uses industrial urethane foam as the “in-fill” for what is essentially a post and beam configuration. The block itself is made of a two-part fire resistant urethane combined with an integral 1-1/2” architectural concrete veneer or optional stucco finish. Amazingly, the structural integrity of the finished block is stonger than conventional CMU building systems.

But structural integrity is only part of the story. Because the urethane mixture produces a solid block of lightweight material within seconds, it allows for uncommonly rapid and efficient construction. It is fire-resistant and a perfect insulator against heat and cold. It is ideal for an untrained labor force, who can manufacture UroBlock at the site in a fraction of the time and at a fraction of the cost of conventional systems. And it is a cost-saving, energy-efficient replacement for the more expensive, heavy-weight, and transport-dependent cement and cinder block, especially in remote and coastal regions.



Calico Jack's Village in Belize is the first site in the world to be built with energy-efficient UroBlock. Newly constucted in the fall of 2001, Calico Jack's Village withstood Hurricane Iris, with damage only to the thatched roofs and beach vegetation. While nearby villages and resorts were devastated by Iris, Calico Jack's stood up to her 140 mph winds, proving UroBlock's durability under severe weather conditions and its suitability to coastal construction.

For more photos of Calico Jack's Village, please visit our website at www.calicojacksvillage.com or contact Chester Williams by phone at 011-501-521-8103 or by cell phone (301-792-2233) uroblock@comcast.net.





Hurricane Iris destroyed nearby villages

Placencia, just 12 miles south of Calico Jack's Village, suffered major damage from the 140-mile winds that swept through the village in 2001. Some resorts in the region were completely obliterated by the storm and are now under reconstruction.



Thanks to UroBlock, Calico Jack's suffered only minor damage

"We knew Iris would cause damage to the thatched roofs, but we were confident that the buildings would remain standing. UroBlock exceeded our expectations, and except for a few of pavers on the pathways that were displaced and the loss of a few tree limbs, our damages were pretty light. We were able to rebuild the roofs quickly and at a much lower cost than some of the harder-hit resorts in the region."

- Chester Williams

UroBlock™: Advantages & Specifications

Advantages

- When mixed, the urethane increases in volume, facilitating efficiency in cost per foot, material handling, shipping, and speed of construction.
- Able to withstand extreme weather conditions
- The facing (vener) is built into the block or an optional stucco finish can be applied.
- Offers unlimited possibilities for architectural applications and finishes
- "Class A" fire rating
- Maintenance-free
- Requires little or no clean-up during or after manufacture
- Face and foam in-fill are insect resistant
- Offers security from elements and human intrusion
- Easy to transport
- Lower cost for raw materials, manufacture, transport, and assembly
- Manufacture is non-hazardous to the environment
- Provides an insulation R-rating of 38, ideal for temperature extremes
- Structural integrity requires no reliance on the roof system for structural assistance

Specifications

- Measures 8-3/4" deep x 16" high x 32" long
- Reinforced concrete beams 16" on center horizontally
- Reinforced concrete posts 16" on center vertically
- Capacity to offer openings horizontally and vertically every 16"

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