



2009 International Building Code Allows Expanded Uses of FRP Composites

The new section of the 2009 International Building Code (IBC), adopted again in 2012, expands the proper uses of *Fiberglass Reinforced Polymer (FRP)* composites for building construction and will allow architects, specifiers and building owners to understand the benefits of FRP as a viable product. Most U.S. Cities, counties and states that establish official building codes for their jurisdictions will adopt sections of the code as written or sometimes add or subtract language to suit particular needs and preferences. For years FRP has been used on buildings but has had limited uses without a uniform code recognition. Often, FRP has been approved only on a case-by-case basis by local building authorities and has not really been addressed in building codes.

In conjunction with the Architectural Division of the *American Composites Manufacturers Association (ACMA)*, which is the largest trade association serving the composites industry our supplier has made great strides with the introduction of the properties and uses of FRP to the International Code Council (ICC). The ICC is the organization that publishes the International Building Code (IBC) that is used as the primary model for building codes used throughout the United States.

Before 2009, FRP products were not recognized in the IBC, falling into the general category of Plastics which limited the use of FRP on building facades. ACMA's Architectural Division developed and submitted to the ICC a code change proposal that added a specific section for FRP Composites under the Plastics chapter. The proposed section addresses several end-use applications and calls for specific testing requirements and regulations for the FRP industry. The ICC approved and adopted ACMA's proposal and the new FRP code changes have become effective with the 2009 IBC. This code change is a significant step towards recognition of FRP composites by the prescriptive building codes of the U.S.A.

In the past, some manufacturers have been known to cut costs by using less expensive raw materials and mediocre manufacturing practices in order to gain a pricing advantage. The addition to the 2009 code sets a bar for all manufacturers to follow and validates FRP as a legitimate material of construction.

A key provision of the new code is the requirement that FRP components delivered to the jobsite carry a third party label from an independent testing and code recognition authority. Companies who use such labels are held accountable to follow stringent manufacturing requirements that result in products that comply with the 2009 code requirements. Zoho Stone's FRP suppliers have undergone the necessary testing and fulfilled the code requirements, and all of Zoho Stone's applicable building products carry the necessary third party labeling.



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The new Section 2612 of the code falls within Chapter 26, entitled "Plastics", and spells out specific tests that must be passed for multi-story use, radiant heat, flame spread, and smoke development. The code makes two exceptions to the general Plastics code requirements.

The first exception applies to the uses of FRP as building ornamentation and its flame spread index requirements, which are based on the percentage of the FRP material on the building substrate. The code requires FRP to be fire retardant and to be installed directly to a noncombustible substrate or to be separated from the exterior wall by code-approved fire blocking materials.

The second exception recognizes that FRP material can now be used on buildings at a height above 40 feet in a manner consistent with noncombustible materials. This set of requirements provides assurance that the materials being used in these applications are appropriate for use, fire retardant, and manufactured per rigid manufacturing practices.

As a member of ACMA's Architectural Division, Zoho Stone suppliers have taken an active role in the IBC Working Group to help initiate and legitimize these code changes. Recognizing the use of FRP in all phases of construction, Zoho Stone and its suppliers have undertaken the task of informing and educating contractors, architects and developers of the benefits and appropriate uses of fiberglass.

For more information, contact **Zoho Stone Cladding Products LLC**.

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