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Composite high rise structures

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While high-rise construction usually allude to a multi-story structure approximately between 30 to 100 meters tall (10 to 40 floors); composite materials are those made from two or more constituents generally with significantly different physical or chemical compositions. The focus in this paper is in-particular on high-rise construction and whether or not composite materials structural integrity is comparable to that of a traditional building. The composites produce different characteristics than those from traditional materials. The purpose of producing composite materials is to produce matters which are stronger, lighter and less expensive compared to traditional substance. Generally, in construction, the composite materials typically include fiber-reinforced polymer and geo-polymer among others. More importantly, these composite materials require to bear a variety of demanding environments such as high winds and seismic conditions which are important design factors for high rise structures. A particular benefit of composite materials for high rise construction is their overall ability to maintain structural integrity despite their lack of conventional construction materials composition. Consequently, composite materials are usually used for high rise buildings, in order to strengthen the overall structural integrity. This paper will discuss the utilization of composite materials in construction particularly for high rise structures and in doing so also provides some case studies to support the ever increasing utilization of composite materials.

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