## **Product Bulletin:** Light Weight – Fast Setting Pre-Cast Compound Suitable for Interlocking Blocks, Panels and Shapes.

**Overview:** ATI-Composites has developed a fast setting, extremely lightweight, fire resistant casting compound that will utilize a variety of waste by-products including Fly Ash from coal fire power plants, to mine tailings or ground inorganic waste from the manufacture of ceramic tiles, fired clay brick and similar materials:

**Details:** The opportunity exists to convert high volumes of waste materials into useful building products for the "affordable housing" market worldwide. The resulting products can include self-aligning blocks or precast panels that incorporate structural elements such as reinforced faces with structural mesh or tilt-up wall panels complete with steel studs cast into the matrix to provide connectivity, wind load resistance and wracking strength.

The picture below shows an example of the Mineral Foam having been cast to form self aligning blocks, which are easy to install, light weight and offer superior insulation and fire performance when compared to regular concrete blocks.

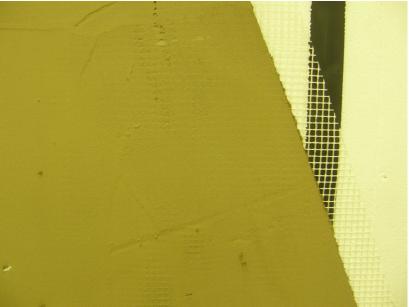


The picture above shows a sample of these lightweight blocks that have been machined to create a channel and ridge to provide a self-aligning system to speed construction and ensure proper alignment.



Note the mortis & tenon structure of the blocks for ease of installation.

These blocks could be placed in a 'mortar less' construction and then coated with a structural mesh and cementicous parging as shown in the picture below (with ICF blocks as the substrate).



The photo above show the use of a polymer-modified thin-set mortar in combination with a structural mesh to provide puncture resistance and structural support when combined with the mortar-less blocks shown above.

Blocks are light weight and made from a variety of inputs from (ground-up) ceramic tile waste to fly ash, mine tailings, volcanic rock, ground shells and/or conventional mortar sand

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