

# Statement on Non-Combustibility of Cementitious Panels

## STRUCTO-CRETE™ Structural Concrete Panel

The only structural, non-combustible panel both manufactured and available in the U.S.A. is STRUCTO-CRETE™ structural concrete panel (formerly FORTOCRETE), manufactured by USG.

STRUCTO-CRETE™ structural concrete panel is considered a structural cementitious panel per the requirements of ICC Acceptance Standard for Structural Cementitious Floor and Roof Sheathing Panels (AC318) rev. June 2009. In this standard there is a requirement to have passed ASTM E136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C and a requirement that the primary reinforcing component in the panel shall not be wood or cellulose fibers.

### Cement Bonded Particle Boards and Test Duration

Products that are cementitious but do not meet the standard for non-combustibility include, but are not limited to, cement bonded particle board panels. The reason is that these panels have not shown that they meet the duration requirement of ASTM E136. This standard requires the duration of the test to be 30 minutes. The State of Florida Building Commission ruled on this issue in 2007. (Please contact your STRUCTO-CRETE structural concrete panel representative for a copy of the **State of Florida Building Commission's ruling.**)

In their ruling, the State of Florida confirmed the duration of the ASTM E136 test to be 30 minutes. They ruled that the duration cannot be reduced (modified) to 10 minutes. Their conclusion was that cement bonded particle board is considered combustible until it can pass an unmodified ASTM E136 test.

Note that some manufacturers and vendors use the phrases “non-combustibility,” “noncombustibility,” “non-combustible” or “noncombustible” in describing their structural panels. However, the manufacturers claim only that these panels meet a modified ASTM E136 test. However, as noted above, a panel is considered combustible until it can pass an unmodified ASTM E136. Below are links to various competitive products stating 10-minute modifications/durations for the ASTM E136:

**Versaroc®**

**Armoroc®** (click “Armoroc” and scroll down to “Fire Resistant”)

Another manufacturer, Viroc, claims non-combustibility per tests conducted in Germany according to DIN 4102 (which is a different test than ASTM E136) and the fact they reach an A2 rating. This means this panel is considered non-combustible per this standard (the higher rating in Germany is A1), but Viroc claims nothing about meeting the ASTM E136 standard which is required per most jurisdictions in the US that follow the latest version of the International Building Code (IBC). See link below:

**Viroc®**

This topic was covered by an independent code consultant who warns decision makers in the US about cement bonded particle board products that are being promoted as non-combustible in the US when the products are manufactured outside the US and the countries where they are used often have different standards than the current US standard. The code consultant's comments can be found at this link:

**Vandergriff Code Consulting Services**

The most blatantly erroneous statement about non-combustibility comes from a Viroc distributor, Allied Building Products Corp., who states without any qualification that the Viroc panel meets ASTM E136, even though the panel's manufacturer does not make that claim. See link below:

**Allied Building Products Corp.®** (a Viroc distributor)

### STRUCTO-CRETE Structural Concrete Panel and Non-Combustibility

STRUCTO-CRETE structural concrete panel is the only structural, non-combustible panel manufactured and available in the U.S.A.

Manufactured by USG, STRUCTO-CRETE structural concrete panel meets the U.S. standard for ASTM E136. See the following UL link for our Noncombustible Building Materials certification:

**STRUCTO-CRETE UL Non-Combustible Building Materials certification**

Always verify a product's non-combustibility claims by asking for a copy of the ASTM E136 test report.

For more information on STRUCTO-CRETE structural concrete panel, or for a copy of STRUCTO-CRETE structural concrete panel's ASTM E136 test, please contact Alex MacDonald, USG Architectural Services Manager at [amacdonald@usg.com](mailto:amacdonald@usg.com).

#### Product Information

See [usg.com](http://usg.com) for the most up-to-date product information.

#### Trademarks

The following trademarks used herein are owned by United States Gypsum Company or a related

company: STRUCTO-CRETE, USG, USG in stylized letters.

#### Notice

We shall not be liable for incidental or consequential damages, directly or indirectly sustained, nor for any loss caused by application of these

goods not in accordance with current printed instruction or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within

thirty (30) days from date it was or reasonably should have been discovered.

#### Safety First!

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read MSDS and literature before specification and installation.



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