

## **SUBJECT: COMBUSTION TOXICITY OF EXTREME SIPS**

Extreme Panels have undergone numerous fire tests for fire and life safety and code recognition of our SIPs and their components, including ASTM E84 “Test Method for Surface Burning Characteristics of Building Materials,” ASTM E119 “Standard Fire Tests of Building Construction and Materials,” and UL 1715 “Safety Fire Test of Interior Finish Material.” As a result of this successful fire testing, Extreme SIPs are recognized by the International Code Council’s Evaluation Services to comply with the fire and life safety requirements of both the International Building Code and the International Residential Code. Please refer to the Extreme Panel’s ICC ESR-4524 for information regarding code-recognized Fire Rated Assemblies.

It is accepted that when a material is burned, combustion gases are released. In building fires, the materials that compose the interior of the structure, i.e., carpet, furniture, etc., are the primary threat when considering toxic combustion gases. In the case of Extreme SIPs, the primary gases released are carbon monoxide, carbon dioxide, and water vapor. These gases are common in fires containing organic materials. Extreme SIPs, when burned, emit by-products similar to those found when wood is burned. While these gases are typically harmless in low concentrations, in the high concentrations resulting from a fire, they can cause asphyxiation.

Extreme Panels believes strongly in fire and life safety first and foremost, and thus always recommends the use of non-combustible fire protection thermal barriers as required by building code. An example would be gypsum board applied to all interior surfaces of the SIPs structure, thereby providing excellent fire protection to the structure and its occupants.