PREMIER SIPS
STRUCTURAL INSULATED PANELS

Passing critical fire tests, SIPS create airtight residential, multi-family & light commercial structures. The airtight assemblies are known to starve oxygen, making fire much less likely to spread through interior spaces.

SIPS & POTENTIAL FIRE EXPOSURE

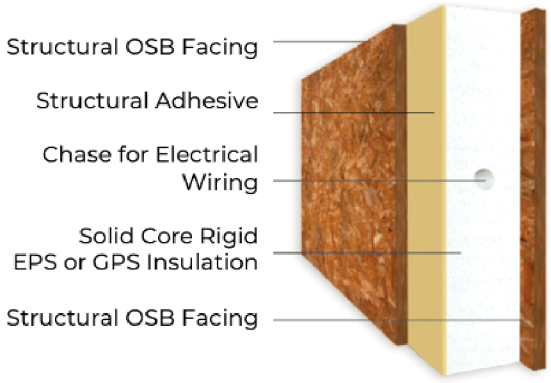
WHAT YOU SHOULD KNOW

Q A WHAT ARE SIPS?

Structural Insulated Panel Systems (SIPS) are a high-quality offsite construction option for creating energy-efficient, durable, and resilient homes, multi-family, and light commercial buildings. Used for roof, wall, and floors, SIPS provide superior structural and energy performance compared to site framed wood stud and batt insulation assemblies.

Q A HOW ARE SIPS MADE?

SIPS are manufactured with precision according to project floor plans. These panels are constructed using two structural OSB wood facers bonded to a solid insulation core that contains a polymeric flame retardant.



Q A HOW LONG HAVE SIPS BEEN USED IN CONSTRUCTION?

SIPS have been used in construction for more than 60 years. As new building codes have evolved calling for more resilient structures, SIPS with their high-performance benefits have emerged to meet code demands. SIPs are strong, durable, and with proper thermal barriers, provide excellent life safety in fire exposure situations.

SIPS & FIRE PERFORMANCE

Q A ARE SIPS SAFE?

SIPS have strength and durability to stand up to high winds and earthquakes. Approved for use in high coastal wind regions, and high seismic (earthquake) zones, including CA, AK, WA and OR. SIPs have proven their safety in fire exposure tests such as, NFPA 286 Corner Room Fire Test, NFPA 251 Fire Resistance test (20 minutes & 1 hour), NFPA 255 Flame & Smoke Developed test, and UL 1256 Roof Assembly Flame & Smoke Developed test. These successful fire tests used properly applied gypsum wall board thermal barriers.

Q A CAN SIPS BURN?

SIPS fall under Type V construction, which. means they are built with combustible materials that can burn. However, SIP structures provide exceptional fire and life safety to occupants when specified and constructed with proper thermal barriers (various thicknesses and layers of gypsum wall board). In real-life fire events, the thermal barriers have slowed down the rate of fire propagation in SIP structures as predicted by the SIP Assembly Fire Testing. Since SIP structures are highly airtight, interior fires have been known to become oxygen starved, making them less likely to spread.

Q A WHAT ARE THE BYPRODUCTS OF SIP COMPONENT COMBUSTION ?

As discussed earlier, SIPs are made from OSB structurally laminated to an insulation core of expanded polystyrene - which has a flame-retardant additive. Thermal barriers are required to protect the SIP in case of fire. However, if an out of controlled fire occurs and the OSB and foam core become involved the products of combustion are basically carbon monoxide and further in the decomposition stages oxides of carbon, water and an amount of soot/smoke.

Q A ARE THE FUMES FROM BURNING SIP COMPONENTS TOXIC?

The smoke fumes from all organic materials can be toxic in that they are oxygen depriving. That said, the smoke fumes from SIP components appear to be equally toxic as, or less then other natural products. Many studies of expanded polystyrene have concluded that it is less toxic than other natural materials such as wood, wool, cork and other plastics.

CONCLUSION: SIPS Are An Efficient and Durable Construction Solution

Structural Insulated Panel Systems (SIPS) are commonly used to build energy-efficient structures that are built to last. These panels are categorized as Type V Combustible construction and require thermal barrier protection to guarantee the safety of its occupants in the event of a fire. Properly installed thermal barriers on SIPs have proven to perform better than wood stud construction. In the event of an uncontrolled fire, the organic component materials of SIPs will emit combustion products similar to those of typical wood construction.