HUNTSMAN
BUILDING SOLUTIONS

# Precast Walls & Fireblocking with SPF

## Fire-stopping vs Fireblocking

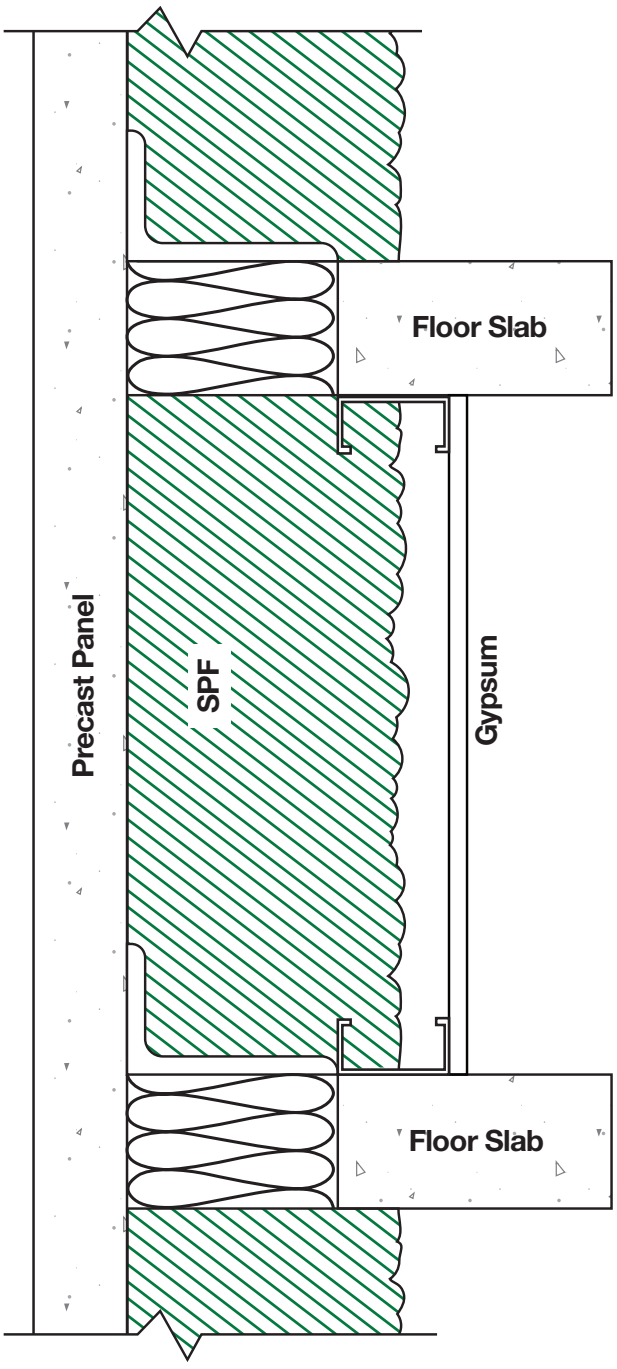
In the simplest terms fire-stopping prevents fire from by-passing through a rated assembly like a floor or wall. While fireblocking prevents the spread of fire spreading within that rated assembly.

## Stopping Vertical Fire Propagation

The “Edge of Slab” is a construction joint detail that must be fire-stopped to prevent flame, smoke and hot gases from passing through the joint.

This fire-stopping ensures that fires are compartmentalized to one floor and therefore stopping the fire from reaching the floor above. Per IBC 715.4.1 the Perimeter fire containment system shall be tested in accordance with the requirements of ASTM E 2307.

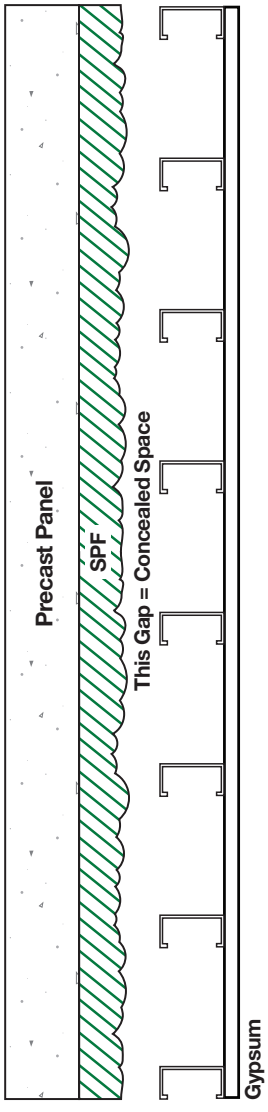
This fire-stopping can be achieved through the use of mineral wool and smoke sealants or prefabricated specialty fire-stopping components installed at the slab edge.



# Stopping Horizontal Fire Propagation

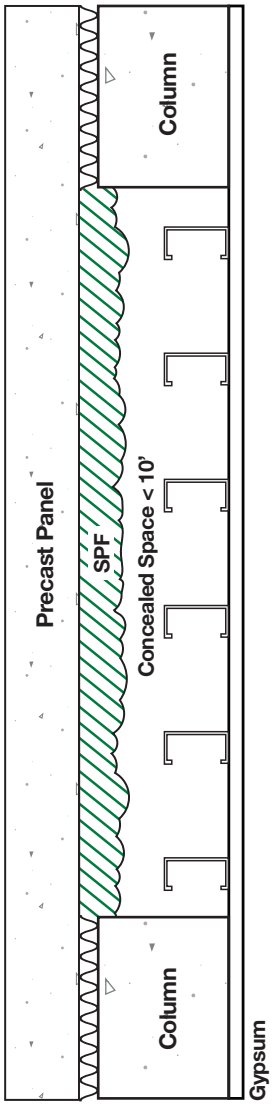
### Diagram A

If a gap greater than one-quarter inch between the face of the foam and the back side of a steel stud exists, this gap is classified a concealed space. Concealed spaces that contain combustible materials, like spray foam, can allow unseen fire to spread throughout a structure.

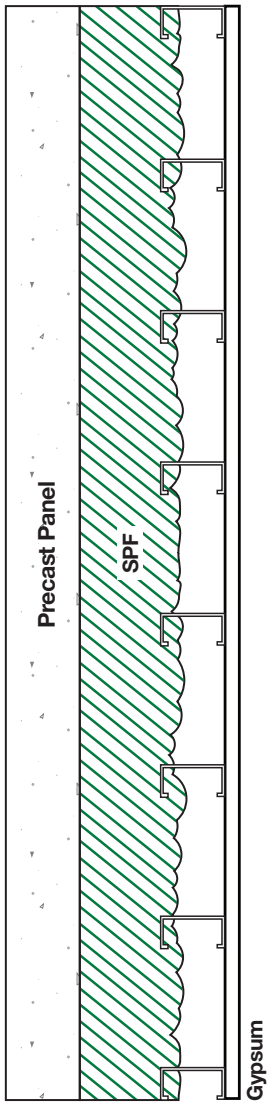

### Diagram B

IBC 718.2.2 States that fireblocking shall be provided in concealed spaces with combustible materials horizontally at intervals not to exceed 10 feet (3048 MM).




### Diagram C

A layer of spray foam that extends from the face of the precast to meet the back side of the steel studs has eliminated any potential of a concealed space. In this situation the steel studs provide the code required fireblocking.




### Diagram D

IBC 718.2.1 lists 8 fireblocking materials that can be used to compartmentalize concealed spaces containing combustible materials. The easiest of the 8 materials to install is a piece of one-half-inch (12.7mm) gypsum board attached to the face of the metal studs that extends to the face of the precast.