

SIPLAST LIGHTWEIGHT INSULATING CONCRETE BULLETIN:

WHEN SHOULD A SIPLAST ROOF INSULATION SYSTEM BE ROOFED?

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SIPLAST*FLASH*

Two of the outstanding advantages of Siplast Lightweight Insulating Concrete Systems, when compared to rigid board roof insulation, are superior compressive strength and the monolithic nature of the finished surface. In addition to enhancing long term roof membrane performance, these Siplast Lightweight Insulating Concrete Systems characteristics create the following production and scheduling benefits during construction:

1. Insulation can be installed well ahead of roof membrane installation. This allows faster production rates during the roofing process, benefiting the roofer, general contractor, and the owner.
2. The roof membrane installation and fireproofing can be scheduled independent of one another, because the steel deck does not have to be coated with spray-applied fire protection.
3. Siplast Lightweight Insulating Concrete Systems will withstand some exposure to the elements. This allows a degree of scheduling flexibility.

Unfortunately, the durability of Siplast Lightweight Insulating Concrete Systems sometimes tempts the general contractor to use the lightweight insulating concrete deck as a temporary dry-in or an unprotected work surface prior to roofing. This is not recommended.

Roof membrane installation should begin when the insulating concrete surface is ready for roofing. According to Siplast guidelines, the surface should be ready:

- When the deck will bear foot traffic without damage, generally 48 - 72 hours after pouring.
- When a base ply fastener has 40 pounds of withdrawal resistance, as evidenced by the nail pull test.

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Siplast does not recommend leaving the deck exposed for more than 10 days, except in cases where weather conditions are preventing the trades from working.

What are the jeopardies of leaving Siplast Lightweight Insulating Concrete exposed?

Prolonged exposure to freeze-thaw or wetting and re-wetting can create surface damage to the insulating concrete, including scaling or spalling.

- Excessive work traffic prior to roofing and installation of proper walkways may damage the surface of the insulating concrete.
- Excessive exposure to rain can cause the system to absorb unnecessary amounts of non-construction water. In such cases, ZIC concrete placed over a slotted metal deck will dry out quickly. When Insulcel is placed over non-slotted metal, rainwater can take much longer to dissipate. This is because rainwater that has entered through the shrinkage cracks inherent to all cellular concrete can accumulate on the metal.

In summary, Siplast Lightweight Insulating Concrete Systems provide a benefit by allowing flexibility in the construction process. However, it is wise to use good judgment and not over extend the exposure of the finished roof deck

If you have questions regarding this bulletin, please contact the Siplast Technical Department at 800-922-8800.

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