

SIPLAST LIGHTWEIGHT INSULATING CONCRETE BULLETIN: PAINTING WELDS

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SIPLASTFLASH

Painting welds on roof decks where Siplast Lightweight Insulating Concrete is to be poured is neither required nor recommended. The alkaline nature of cement inhibits rust formation. Welded decks, when welds are encased in concrete, show outstanding performance without paint. Siplast Lightweight Insulating Concrete Systems have a long history demonstrating this.

Lightweight insulating concrete achieves its bond to the substrate via two mechanisms:

- 1. The primary bond is achieved by the natural reaction of the zinc in the galvanized coating on the metal deck with the alkaline constituents in Portland cement. This is a chemical bond.
- 2. An additional bond is achieved by the mechanical attachment of the concrete to the irregular surface of the deck, laps and protruding weld washers.

Lightweight insulating concrete does not bond predictably to painted surfaces. A roof deck system that has lightweight concrete poured over painted welds could, therefore, be compromised at all weld points.

UL and FM Approvals tests are conducted on lightweight concrete roof deck systems with decks that do not have painted welds. Therefore, a system with painted welds would not be in accordance with UL and FM Approvals tests.

PG:MC

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