

SIPLAST*FLASH*

Expansion joints incorporated into roof constructions are designed to isolate structural movement from the elements of the roof system. A correctly designed expansion joint assembly is anchored to the structural members or deck of the building, and extends through the roof insulation and membrane components. This practice allows for both expansion and contraction on the horizontal plane of the roof, and the shearing forces between junctures to occur without affecting the integrity of the insulation and membrane systems.

Siplast Lightweight Insulating Concrete Systems have proven for over 60 years to be stable roofing substrates. Properly formulated lightweight insulating concrete has a very low coefficient of thermal expansion and contraction. As a result, Siplast requires no specific expansion-contraction treatment, except where standard construction design practice dictates the inclusion of an expansion joint assembly. In such cases, expansion joints are required where appropriate in all Siplast guaranteed installations to avoid unnecessary isolated stress conditions. In general, the designer should consider expansion joints in the following situations:

1. Where the roof deck spans change direction.
2. Junctures where changes in deck material occur.
3. Where building additions are connected to existing buildings.
4. Where the roof changes directions such as "U" or "L" shaped buildings.
5. Deck junctures with walls or other vertical surfaces where independent movement between adjoining surfaces is anticipated.
6. Every 200 feet of continuous deck (length or width).
7. Wherever provisions for expansion joints occur in the building structure.

The situations indicated above are typical industry parameters for roof expansion joint design. In all cases, Siplast recommends that each project be specifically evaluated by the designer for potential movement between structural elements. Roof expansion joint constructions should be individually tailored to meet the actual job conditions.

A control joint is different from an expansion joint in that a control joint does not go through the roof top structure. The control joint is an expansion/contraction area within the roof insulation, usually at the perimeter of the building that is used for insulation products that have a high coefficient of expansion or contraction. Since Siplast Roof Insulation Systems have a very low coefficient of expansion, the use of control joints is not necessary.

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