

# A CARLISLE Company

## **TECHNICAL BULLETIN No. 1016**

### DATE: SEPTEMBER 15, 2005

#### SUBJECT: INSULFOAM EPS FASTENING PATTERN for MECHANICHALLY FASTENED SINGLE PLY ROOF MEMBRANES

Insulfoam EPS is used in numerous types of roof applications as the insulation and substrate to which a single ply roof membrane is placed. Mechanically fastened membrane systems rely on fasteners that are placed through reinforcement in the membrane to withstand wind uplift pressures. These systems differ from ballasted and adhered systems with regard to wind uplift resistance. A ballasted system uses ballast such as river rock to hold the membrane and underlying insulation in place. An adhered system uses adhesives to adhere a membrane to the underlying insulation substrate. Adhered roof membranes require numerous fasteners to be installed through the insulation system to keep the roof system in place. Mechanically attached single ply are different as the membrane does all the uplift resistance. The insulation need only be pinned to prevent shuffling under the membrane during a wind event. The minimum number of fasteners for these types of applications using Insulfoam EPS roof insulation systems is as follows:



Membrane manufacturer should be contacted for proper fastener spacing of membrane to meet project wind uplift design.

#### **Insulfoam Technical Center**

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