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Subject: Foam Application Spill Coverage Areas (Without Fire)

Badger sometimes receives questions regarding the approximate amount of coverage area that is possible from a portable foam fire extinguisher to cover liquid fuel spills.

There are many variables that affect the amount of protective coverage obtainable and just how long an effective foam blanket will remain over a flammable liquid spill. Specific variables such as the type of fuel, its boiling point, the ambient temperature, type of surface involved and wind conditions can affect the vapor suppression and protective coverage of foam agent blankets.

While the amount of combustible fuel vapors suppressed by any foam application is difficult to calculate and measure, the approximate surface area that a given hand portable foam extinguisher provides a visible foam blanket is possible to share.

The following foam coverage areas were obtained from discharges onto a flat, wet concrete surface on a day with minimal wind and an ambient temperature of approximately 60 Fahrenheit. The coverage areas indicated, displayed the type of good visual foam blanket that is typically associated with proper vapor suppression coverage. Ten-foot rectangular test areas were established and the extinguisher operator was only allowed to approach from one side. Foam agent discharged from the fire extinguisher was continuous until empty, with no intermittent discharge permitted.

Square feet of surface area covered

Badger Model F-100 (6 liter) AR-AFFF	Badger Model F-250 (2.5 gal) AR-AFFF
10' x 12' = 120 square feet 3.05m x 3.66m = 11.15m ²	10' x 20' = 200 square feet 3.05m x 6.09m = 18.57m ²

Note: (1 gallon flammable liquid spill with a depth of 1/8" covers approximately 12.83 sq. ft.)

It is important to remember that when referencing this surface application coverage data that these areas represent the maximum spill coverage possible without a fire. To properly account for the many variables associated with any liquid fuel spill situation, a reduced figure of application coverage (acceptable to the authority having jurisdiction) should be utilized for a practical safety factor.

Additional product information and bulletins regarding foam fire extinguisher applications are also available through the Badger website at www.badgerfire.com.