# Protect Your Home with FoamFast Wildfire Pre-Treatment Kits using Class A Foam Cartridges.

# **CLASS A FOAMS**

Class A foam concentrates are a mixture of foaming and wetting agents in a non-flammable solvent. These products are generally non-hazardous, non-corrosive and non-flammable.



Class A foam is typically used at very low concentrations. Proportioning percentages range from 0.1% to 1% by volume of water. In addition to the methods of proportioning discussed in this guide, premixing provides an inexpensive and uncomplicated method for use. Unlike Class B foams, proportioning accuracy and application rates are not as critical to the performance of the foam.

### **CLASS A FOAM EXTINGUISHING PROCESS**

Class A foam extinguishes by isolating the fuel, reducing the fuel temperature and separating the supply of oxygen. The most common method of extinguishment is the use of water for cooling and heat absorption. Water is relatively abundant, easy to use and able to absorb great amounts of heat as it turns to a vapor. In order for water to absorb the maximum amount of heat, it is necessary that each drop of water turns to vapor.

- SPREADS WATER OVER THE CLASS A FUEL
- SLOWLY RELEASES ITS WATER
- ADHERES TO ITSELF
- PENETRATES THE FUEL

# CLASS A FOAM APPLICATIONS

Class A foams may be used as a firefighting agent or as a fire barrier.

As a wetting agent, Class A foams lower the surface tension of the water. The high surface tension of water

causes untreated water to "bead up" on the surface of the burning fuel and roll off of the fuel surface without penetrating and absorbing heat or cooling the fire. This problem requires that more water be used to extinguish the fire. Class A foam solution, containing 0.1 to 1.0% foam, reduces the tendency of water to "bead up" by lowering its surface tension. This in turn allows the water to penetrate the burning surface, absorb the heat and cool the fire much more rapidly, with less water. Class A foams provide quicker control and increased penetrating power for deep seated fires.

# ADVANTAGES OF CLASS A FOAM

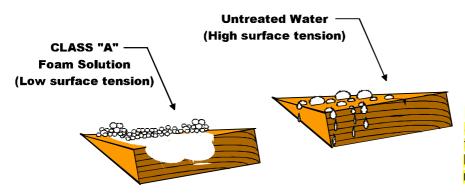
- Increases effectiveness of water
- Reduces suppression and mop-up time
- Relatively easy to pre-mix
- Effective on all types of class "A" fires
- Can provide a short term fire barrier
- Proportioning and application rates are Not Critical as with class "B" foams
- Raises moisture content in material by 50%
- Absorbs 3 times more heat than plain water

Class A foams can also be used as fire barrier to pretreat Class A combustibles. When using Class A foams as a protective barrier, expansion of the solution is critical to the effectiveness of the foam. The foam's ability to "hold water" depends heavily on the integrity of the bubble. If the foam is not properly expanded, the water will drain quickly, providing little or no protection against the heat of the fire.

Proper aspiration of Class A foams is often achieved by using a compressed air foam system "CAFS". These systems use an air compressor to accomplish superior foam expansion. Better range is often accomplished by using a compressor driven system, and less water is used in the process. This method is widely used in wildland firefighting.

By "blanketing" a structure that is in the path of a fast moving wildland fire, the foam can actually act as a barrier to prevent the structure from reaching an ignition temperature. This blanket is also capable of pre-

venting airborne embers from igniting the structure. Because of compressed air foam's ability to stick to inconsistent and vertical surfaces, this blanketing technique can also be used to create a firebreak by "blanketing" trees and brush on one or both sides of a road or other natural break in the foliage. By raising the moisture level in this dried out area, the rapid spread of the fire is halted.



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