

Firehouse.com WEEKLY DRILL

DRILL # 36: PERSONAL PROTECTIVE EQUIPMENT – PART 2

Introduction

Often times we think of personal protection equipment (PPE) as being only for structural firefighting. There are a number of exposures that we can be faced with while performing our jobs. Firefighters stationed at an airport, for example, are generally associated with aircraft rescue. Structural PPE would not be best suited for this type of firefighting as their duties require them to be in close proximity to hot, burning fires.

For maximum protection, these firefighter would wear PPE known as proximity gear. This type of PPE has an aluminized protective coating that helps reflect the radiant heat produced at an aircraft fire. This equipment has to meet some intensive reflective and insulation standards. Many people have been under the false impression that this PPE protects firefighter so well that they can walk right into the flames. This cannot be further from the truth. As the name implies, it is only affective for proximity work.

The aluminized coating material allows firefighters to get close to extreme radiant-heat producing fires. Other uses for proximity PPE would be at a bulk fuel facility or at a chemical plant.

Proximity PPE is generally a three-piece outfit consisting of a coat, pants and a hood. The hood fits over the head and covers the shoulders with the aluminized material. The hood comes with a face shield that is coated with an anodized gold material that creates a mirror-like finish on the glass, which reflects heat away.

Another specialty type of personal protection equipment is the lightweight clothing used by wildland firefighters. Wildland firefighting is a whole different animal that requires prolonged physical activities in less than desirable conditions.

This type of PPE (or brush gear, as it is more commonly called) is designed of a fire-resistive material and actually has some breathability to it. The brush gear is worn over an undergarment that consists of a long-sleeved T-shirt, pants and socks. This undergarment should be made of 100% cotton; synthetic materials should never be worn.



Footwear is another very important part of the wildland firefighters PPE. Generally, high-quality leather boots between 8 to 10 inches in height are used, giving support to the ankles and at the same time helping aid against snake bites. If you have ever been in the military, you will understand how important a good-fitting pair of boots are.

One piece of equipment carried by wildland firefighters is their fire shelter tents. Although not really considered to be a part of their PPE, it does provide protection. Made of the same material as firefighting proximity PPE used by ARFF firefighters, this equipment is a very essential part of the life-safety equipment needed in the field. Should a fire switch direction and catch the firefighters off guard, this shelter might just be the piece of equipment that saves the firefighter's life. The aluminized material works to reflect radiant heat, however, the shelter does not protect the firefighter from falling objects, such as trees. It could be quite possible that the firefighter survived the firestorm, but was killed when a tree toppled over on top of his shelter.

Another piece of essential equipment for survival in the wildland firefighting environment is the web gear. Web gear is basically a web belt with attachment points to carry the fire shelter, a radio, a water canteen, flares, and in some cases maps of the area in which the firefighter will be operating. For some wildland firefighters who are going to be out on the front lines for an extended period of time, they may also attach a lunch box.

–Prepared by Russell Merrick