

Star Army Fire Suppression Foam

Fire suppression foam is one of the latest innovations for combating fire. It became available in [YE 32](#).

FOAM

FOAM is an acronym that explains what it is and how it works.

F - Fire O - Oxygen-binding A - Asphyxiating M - Medium

About FOAM

FOAM works against the fire by depriving it of oxygen by binding it and by smothering the fire with the rubbery foam.

FOAM is a heat activated amber colored substance. At room temperature FOAM is viscous, almost gelatinous. When exposed to temps above 100 degrees C, it reacts and binds to the free oxygen. This causes the liquid to turn into a foam and expand rapidly. The ratio of expansion is 1:100, or that 1 cubic cm creates .1 cubic meter. The hotter the heat the faster the reaction. The foam itself is non-flammable, and helps to smother the flames. By binding the oxygen it helps to starve the fire of oxygen.

Clean up

After its initial reaction FOAM goes into an endothermic state. During this state the FOAM absorbs the heat from whatever it is on, and it collapses to half its volume. Once cooled reacted FOAM is a rubbery substance, that can be peeled off most surfaces without difficulty, facilitating clean up after usage. When used on on starships and star fortresses the reacted FOAM is taken to the [Standard Star Army Fabrication Area](#) for recycling. When used on ground based situations, it is taken to a planetary facility for recycling.

Fire Classes

FOAM is completely effective against Class A, B, C fires. FOAM is effective against most Class D fires, against self-oxidizing FOAM will only provide a mitigation as it binds with the oxygen being generated, but once the FOAM has reacted the fire will continue. For this reason a Class D rated extinguisher is preferred for these types of fires.

History

F.O.A.M. is the creation of [Jalen Sune-Nitô Juni](#), after numerous shipboard battles on board the [YSS](#)

[Eucharis](#) he found himself having to fight fires and wanted to develop a more effective method.

Deployment

F.O.A.M. is capable of being deployed by a variety of methods.

Extinguishers

FOAM is generally deployed in hand carried extinguishers for combating small fires. These consist of a canisters, with a squeeze grip on top and a short hose for aiming. They can be refilled after use. Typical extinguishers come in 1, 2, and 4 liter sizes. Extinguishers are pressurized with a non-reactive gas.

Grenades

FOAM can be used in small glass nodules which are tossed by hand. Upon impact the nodule breaks releasing the FOAM. These can be used in conjunction with Extinguishers or as an emergency fire fighting item that can be deployed on small craft, or in damage control lockers. The nodule holds 140 cc's.

Canister

FOAM can be deployed in large canisters that are dropped onto a large external fire. An aerospace craft can make a 'bombing' run to deploy the FOAM. An instance of this would be to get control of a large chemical or liquid fire at a facility that produces or stores the material. These canisters contain 208 liters (55 gallons) of FOAM.

Hose

FOAM can be deployed by any traditional fire fighting system, with little modification required. This means it can be used on ground installations, and space borne ones. It can be deployed in a spray or a stream depending on the conditions.

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