CLASS D

RUGGED

- 6-Year manufacturer's warranty
- Stored pressure design
- Dependable drawn steel cylinders
- Class D color-codes paint finish
- All-metal valve construction
- Temperature range +40°F to 120°F

USER-FRIENDLY

- Unique "soft flow" extension applicator plus built-in long-range nozzle
- Large loop stainless steel pull pin

570 Sign

571 Sign

The Amerex "soft flow" extension applicator is particularly suited for fighting Class D fires. It allows the operator to stand away from the extreme heat and toxic fumes caused by burning material. The easily controlled, even discharge provides a non-dispersing application of the agent. The extension applicator may be quickly detached to provide a straight stream of chemical where greater range is required.

MODEL B570 contains a special blended Sodium Chloride based dry powder extinguishing agent. Heat from the fire causes it to cake and form a crust excluding air and dissipating heat from burning metal. Metal fires involving magnesium, sodium, potassium and sodium-potassium alloys can be successfully extinguished with this extinguisher. There is data showing that zirconium, uranium, titanium, and powdered aluminium fires can be controlled and extinguished with this unique extinguisher.

Extinguishing Capacity 30lb Super D Dry Powder	Fire Ratings Approx Hazard Size	
HAZARD	**Area**	**Qty of Metal**
Magnesium Chips	4 ft²	6 lbs
Sodium Spil	5 ft²	5 lbs
- Depth over ½ inch	3 ft²	6 lbs
Potassium Spill	5 ft²	5 lbs
- Depth over ½ inch	3 ft²	6 lbs
Sodium Potassium Alloy Spill	3 ft²	2 lbs

MODEL C571 contains a copper extinguishing agent specially developed by the U.S. Navy for fighting lithium and lithium alloy fires. The copper compound smothers the fire and provides an excellent heat sink for dissipating heat. Copper powder has been found to be superior to all other known fire extinguishing agents for lithium metal fires. ***Not recommended for lithium-ion battery fires.***

SPECIFICATIONS		
Agent	**Sodium Chloride**	**Copper**
Model	**570**	**571**
Valve	Chrome Plated Brass	
Design	Hose & Wand Applicator	
Capacity	13.6 Kg	13.6 Kg
Shipping Weight	24.1 Kg	27 Kg
Dimensions	890 x 330 x 205mm	865 x 280 x 180mm
Range	1 - 2	1 - 2
Discharge time Sec	24	18
FM Approved	Yes	Yes
Operating Pressure	195 psi	195 psi
Standard Bracket	Wall Bracket	

FM APPROVED

MANUFACTURED AND TESTED to UL STANDARDS
COMPLIES WITH NFPS 10 STANDARD
ISO 9001 / ISO 14001 CERTIFIED
FM APPROVED

AMEREX®

MADE in USA

Class D FIRES – WHAT YOU SHOULD KNOW

Class D hazards are very dangerous. They burn hot (1350° C for magnesium, even higher for other metals). Most react violently with water, Halons, Halon substitutes and CO2. They emit toxic vapours (lithium fires produce huge amounts of dense smoke; the best extinguisher to use on lithium fires is the Model 571 with copper agent). Proper extinguishing technique may require 8-15 lbs. or more of extinguishing agent per pound of burning material (for more information, look at the label on the back of our Model 570 and Model 571 regarding "extinguishing capacity"). If proper extinguishing technique is not used the burning material may spread throughout the area. Fighting these fires requires an integrated approach including extinguishers, safety equipment, bulk agent, and thorough training.

Class D fire extinguishers come standard with a long hose and applicator wand. This helps keep the operator away from the heat, toxic vapours, and possible burns from flying materials. The bell-shaped discharge nozzle is angled 45° to allow agent application from above thus minimizing the dangerous spread of the combustible material. The discharge nozzle provides a soft, easily directed and controlled discharge pattern with the valve fully open.

Personal Protection and Safety Wherever Class D Fire Extinguishers are used - Due to the extreme heat and toxic vapours that may be generated by a Class D fire. It is very important that the person using the extinguisher exercise an equally high level of caution, has appropriate personal protection, and is properly trained.

When installing Class D Fire extinguishers, a discussion on additional safety equipment located next to the units is appropriate. Personal protection and safety are always the first concern of every comprehensive fire protection plan.

Proper agent application for Class D fires - Class D fires require a unique application technique. Unlike Class A or Class B fires, you will not see a lot of flame or feel a lot of radiant heat in the early stages of the fire. There will be intense light in the case of magnesium, volumes of dense smoke from lithium, and very little smoke with either titanium or zirconium. But don't let the small size of the fire or the lack of flame fool you. These are serious fires and the potential for disaster exists if underestimated.

Burning Class D material generates hydrogen gas when it is exposed to water causing an explosion. Moisture in the ground, concrete, or even in some agents themselves may cause this reaction. Extreme caution must be used when fighting these fires.

The control of these fires is achieved by attacking two fronts simultaneously: excluding oxygen from the combustible metal by surrounding it, even what isn't yet burning, and by the absorption of heat to below the temperature required to sustain the fire. This feature referred to as "heat sink". The principle of is to completely cover the burning material with a layer of Class D agent up to 2 inches thick. After using the applicator wand to cover the material and while standing ready to reapply agent as burn through "hot spots" appear. It is best to use either the agent remaining in the fire extinguisher or to utilize the scoop and pail to prepare to seal the underside of the burning material.

How do you get the burning material that is already in one spot on top of the 2-inch bed of agent? After discharging or shovelling agent onto the floor near the burning material carefully use a clean, dry shovel to move the pile of agent encrusted combustible metal. Gently lay this on top of the bed of agent, return to the extinguisher or scoop and continue applying agent to any cracks that appear in the crust or cover any new hot spots that appear to be burning through. Remember even without hot spots the fire may still be burning deep below the surface. Always use extreme caution and patience. Make sure the fire is **completely out** before attempting cleanup procedures.

The nature of this type of material – high temperature, moisture sensitivity, fine particles easily spread, tendency to generate toxic gases or smoke. Check the operating instructions on the extinguisher

"CAUTION: FIRE MAY RE-IGNITE, ALLOW METAL TO COOL BEFORE CLEANUP".

Why there is no numerical rating for Class D extinguishers - Class D *hazards* vary widely in form and difficulty of extinguishment. Each combustible metal is different; each form that it is in presents different challenges (castings vs. dry turnings vs. wet turnings vs. powder vs. chips vs. shot vs. etc..) so that a repeatable, consistent way of rating these extinguishers according to firefighting effectiveness has been impossible.

Class D *hazards* are completely different than any other Class of Fire. Agents that work on Class A, B, E and even K have no effect on Class D fires and may have an adverse effect. Conversely, agents that are effective on Class D fires have no effect on any other class of fire.

When dealing with Class D fires, a 15:1 ratio of extinguishing agent to burning material is unique to metal combustible fires and when coupled with the physical characteristics (powder, dust, pellets, and shavings) makes it extremely difficult for UL to run exacting tests. The result is no numerical rating. This leads to our label on the back of the Model 570 and 571 that lists approx. quantities and sizes of hazards by square feet and pounds of material.

References for Class D Information

- 29 CFR Chapter XVII – 1910.57(6)
- NFPA 325 – Fire properties of liquids, gases & volatile solids
- NFPA 481 – Titanium storage and handling
- NFPA 485 – Lithium storage, handling, processing and use
- NFPA – Fire protection handbook: section 3, chapter 13
- Dangerous Properties of Industrial Materials– Sax/Lewis