



WILD FIRE RETARDANT POWDER  
**FS-PG™**  
**PERIMETER GUARD**  
**HANDBOOK**

Passive Fire Protection designed to create  
a long-term fire break around your property.

Protect your home and property  
from wildfire events.

[www.flameseal.com](http://www.flameseal.com)



## WILD FIRE RETARDANT POWDER

# FS-PG™ PERIMETER GUARD

### HANDBOOK

### INTRODUCING FS-PG

FS - Perimeter Guard is intended as a pre-treatment product to impart long term protection for your home and property from the threat of wildfire. The product is utilized to treat the immediate area outside the landscaped area prior to or during the wild fire season. If the property is threatened from an active Wild Fire the product can be applied prior to vacating the area. Flame Seal also offers additional products to protect the landscaping and structure on your property.

Congratulations on the purchase of FS - Perimeter Guard and taking a proactive approach to protecting your property and wild lands FS - Perimeter Guard is a long-term fire retardant. This fire retardant is designed to be applied as a pre-treatment by spraying the dry area around the perimeter of your property. Natural material such as dry grasses, brush and wood chips can be treated around your property at any time during the fire season. The product will remain effective until washed away by rain or any application of water.

The active fire retardant in FS - Perimeter Guard, changes the flammability of the treated plants and other fuels by altering decomposition process when exposed to fire. Ordinarily a fire spreads by preheating fuels as it advances, releasing combustible gases, which then ignite. When fire reaches the fuels that have been treated with FS - Perimeter Guard the heat changes the surface of the fuels into carbon and releases water. The water boils off, absorbing heat and cooling the fire. The result is a carbon surface that is difficult to burn in wildfire conditions. This provides insulation for the fuel remaining under the surface and deprives the fire of the additional raw material it requires to propagate.

### PLANNING YOUR FIRE PROTECTION

Careful planning is required before spraying FS-Perimeter Guard. This involves the timing of the spraying, the areas to be sprayed, and the amount of fire retardant to use.

### MIXING

FS – Perimeter Guard is a water-soluble powder. The product is packaged in 5-pound bags. .To mix the product place the powder into a 5-gallon bucket. Using a standard drill mixer add 5 gallons of water to fill the container. Mixing can be accomplished using a stir-stick, this requires additional time and effort.

The diluted product should adhere to the surfaces of the treated grass, brush and other possible wood materials.

### EQUIPMENT

The mixed product can be applied using a variety of equipment and techniques. A simple garden sprayer can be used to cover small areas. For larger areas there are several industrial grade applicators that can be used. Additional information is available by contacting Flame Seal at [flameseal@flameseal.com](mailto:flameseal@flameseal.com).

## TIMING

FS-PG is best used as a pre-treatment. The product can be applied at the onset of the fire season and maintain its active fire protection properties throughout the season.

FS - Perimeter Guard will remain effective throughout the entire fire season as long as it remains dry. Sustained rain of more than 1/4 inch will wash away enough of the retardant to reduce its effectiveness, warranting reapplication of the fire retardant in order to maintain a secure perimeter.

The product can also be applied at the onset of a fire event prior to evacuation if time permits. Note: The product is not intended for suppression of active fires.

## AREAS TO BE SPRAYED

FS - Perimeter Guard fire retardant should be applied (in its “finished product” form) to create a protective perimeter around the property. The application must encompass the entire boundary of structure, including any outbuildings, garden areas and swimming pools. In most cases the entire perimeter of the property must be treated.

For larger properties with substantial acreage kept as wild land, this may mean creating a protected perimeter around the developed parts of the property.

Factors to be considered include:

- Before spraying, clear as much brush and deadwood as possible from the application area.
- The fire retardant should be applied directly to flammable materials, without the need to clear down to mineral soil.
- The majority of the fuel that will burn rapidly should be coated with the product. This will delay and prevent the fire from propagating, if the application area is wide enough to prevent the heat radiation or flame from crossing over the application area of the treated area. Consideration should be given to the width of the treated area. The type of fuel, volume and height of fuel, wind speed and direction, and slope of terrain determine fire retardant line widths. (See spray chart for more information on spray line width).

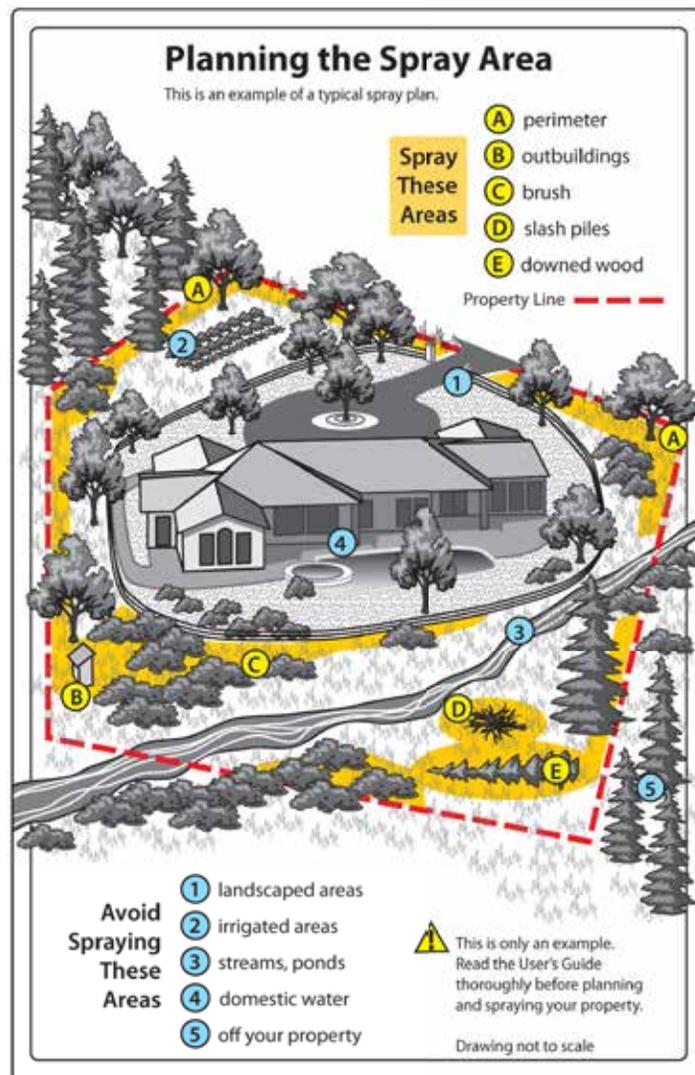
- Avoid leaving fuel untreated, which can allow the fire to escape. Apply the retardant to highly flammable areas, such as large slash piles, downed trees, fallen leaves, needles, and areas of thick duff.
- FS-PG fire retardant is also effective on wooden fences; however, it may be necessary to coordinate with neighbors before spraying a shared boundary.
- It is not recommended spraying fire retardant on houses and other structures. While the retardant is safe and effective for such applications, the product is designed to provide a defensive perimeter surrounding the entire property.
- For larger properties, it is recommended to create a secondary perimeter, inside the primary, in order to ensure a secondary protection from the wild fire event.

For smaller properties, the above items should be considered, it is recommended to create a wider fire retardant line.

FS – Perimeter Guard is composed of products traditionally used in the agricultural industry.

Accordingly, keep the following in mind:

- Apply the retardant only to wild land areas, not to gardens or other irrigated areas.
- If applied at high concentrations, all plant nutrients, including this fire retardant product cause leaf burn and drop. The effect is temporary, as new growth will return, enhanced by sufficient watering.





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### SPRAYING

Aim the spray nozzle toward the target area and determine the spray pattern, adjust as necessary to provide a strong and even application fan. The product will spray and appear clear. During application, it is important that the area be covered with the product. Review the application area and look for a complete saturation of the applied areas. Note – the retardant will dry into a colorless coating.

Spray the area to be treated thoroughly. Ensure the full amount of product that is appropriate for the type of fuel being treated is utilized.

The fire retardant cannot be over-applied.

Don't spray landscaped areas or areas subject to runoff.

When the tank runs out, refill it and continue spraying until the entire perimeter is treated.

When the perimeter is complete, spray out the remaining retardant on less protected areas.

### CLEANUP

Clean the sprayer with water after the application of the perimeter is complete.

Choose an appropriate location for washing the sprayer. Avoid getting retardant on landscaped areas, as it can over-fertilize plants, causing leaf burn and drop.

Avoid getting retardant in runoff areas.

Avoid spraying water on treated areas, as it will wash away the retardant and decrease its effectiveness.

Rinse the tank thoroughly with water and empty it. Then fill the tank half full with water and spray the water out through the hose and nozzle (being careful not to wash retardant away from treated areas).

### WIDTH OF SPRAY AREA & WILDFIRE THREAT PROCEDURE

When spraying, coat all fuel surfaces to their saturation point. Plant matter should be dripping wet and all ground fuel such as leaves, needles and duff should be saturated down to mineral soil.

### SPRAY AREA WIDTH

When determining the width of the spray line, a general guideline to follow is to spray at least 2 times the height of the fuel to be treated.

For example:

- 12" tall grass -- Spray a 24" wide perimeter.
- 6' tall brush - - Spray a 12' wide perimeter.
- Tall trees - - Spray around the tree, spray ground cover and duff 20' wide.
- Spray ladder fuels, such as branches and needles, up to 10' high.

In the event of an approaching wildfire threat: **Personal safety must be your most important priority.**

It is advisable to adjust the spray plan to include spraying shrubbery, landscape, leaves, and trees that are adjacent to the structure. Accumulated debris on, or around the structure, untreated wood decks, fences, and wood- shake or shingle roof may also be sprayed. FS-Perimeter Guard may cause color change, premature patina, and/or discoloration of metals.

### SAFETY PRECAUTIONS

Handle FS - Perimeter Guard fire retardant solution in accordance with good industrial hygiene and safety practices, including:

Wear safety goggles to prevent eye contact. In the event of contact with the eyes, flush eyes with plenty of water.

Wear protective gloves to minimize skin contact.

The salts in fire retardant are plant nutrients, and can cause excessive growth of aquatic plants.

Locate mixing and loading points where natural water contact is minimal.

Take care to prevent spills, particularly near rivers, ponds, and lakes. Be especially careful when using fire retardant near fish hatcheries.

Avoid direct application of fire retardant into, or on the banks of, rivers, streams, ponds, and lakes.

When retardant is used near domestic water supplies, take the same precautions as described for natural water features. A 50-foot buffer zone from the high water line of domestic water supplies is recommended.

When cleaning up after applying fire retardant, make sure that wash water does not run off into storm drains, natural bodies of water, or domestic water supplies.

If applied at high concentrations, all plant nutrients—including fire retardant salts—will cause leaf burn and drop. This is a temporary effect; new growth will soon reappear.

Do not apply FS-PG within 50 ft. of waterways.

### SAFETY INFORMATION

Refer to the FS-Perimeter Guard container for safety information on the fire retardant.

FS-Perimeter Guard is a very safe product when used correctly. Care should be taken when applying and working around the product. Do not spray on live electrical sources due to potential shock hazard. From a personal exposure standpoint, the FS-Perimeter Guard Material Safety Data Sheet ("MSDS") states that the material can be irritating to skin or eyes. Proper handling procedures, including skin and eye protection, are advised. Please review the MSDS or contact us for further information.

## LEGAL NOTICE

While the flame seal products FS - Perimeter guard has been well tested, it is intended that the retardant will be used in conjunction with sound wildfire prevention or protection practices. Accordingly, homeowners should consult with their local fire department, wildfire mitigation personnel or local forest service personnel regarding removal of vegetation and other fuel sources for fires around their property.

Flame Seal Products offers FS-Perimeter Guard as a long term retardant in good faith, but without a guarantee of any type because materials treated and methods of application are beyond the control of the company. Accordingly, Flame Seal Products accepts no responsibility or liability arising from the use of FS - Perimeter Guard whether or not your use is in accordance with any advice, information, recommendation, or specification received from or on behalf of the company. The suitability of the FS – Perimeter Guard should be determined for the intended use prior to application.

Flame Seal Products, its members, managers, employees, agents and/or affiliates, make no representations and/or warranties regarding, and hereby disclaim any and all representations and/or warranties (express or implied, oral or written) with respect to the effectiveness of FS – Perimeter Guard and any and all implied warranties regarding the application of FS – Perimeter Guard, or FS – Perimeter Guard’s fitness or suitability for any purpose (whether or not Flame Seal and its affiliates know, have reason to know, have been advised, or are otherwise in fact aware of any such purpose), whether alleged to arise by law, by reason of course of dealing, usage of trade, or otherwise. Flame Seal and its affiliates shall in no event be liable, whether in contract, tort, or on any other basis, for any direct, consequential, incidental, indirect or punitive damages, or loss of profits of any kind sustained by the purchaser or any other user of FS – Perimeter Guard fire retardant.

## TROUBLESHOOTING

Please email Flame Seal Products at [flameseal@flameseal.com](mailto:flameseal@flameseal.com) or call at 713-668-4291.

## WARRANTY

For further information on warranty policies and replacement procedures, please contact Flame Seal Products at [flameseal@flameseal.com](mailto:flameseal@flameseal.com) or call at 713-668-4291.

## CONTACT INFORMATION

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IS OUR PRIORITY.**