

FIREBLOCK® FOREST



USER MANUAL

REVO2 2025

PRODUCT OVERVIEW

Product Name:	Fireblock FOREST
Form:	Powder (non-toxic, biodegradable)
Packaging:	10kg / 22 LBS bags
Colour:	Green
Use Case:	Fire suppression for Class A fires (veld, grass, forestry, wood , paper, organic solids and structural fires)
Warning:	Not suitable for electrical (Class C), or chemical fires, or. flammable liquids (Class B)



DESCRIPTION

Fireblock FOREST is a specialized firefighting powder that, when mixed with water, transforms into a durable cooling and protective gel. Originally developed for Mondi Timbers in South Africa, the product has since been tried and tested by both Mondi and Sappi in forestry and mill environments, where fire risk is a constant challenge. These trials demonstrated Fireblock FOREST's unique ability to bond to vegetation, wood, and even metal surfaces, forming a heat-resistant barrier that both suppresses active flames and prevents re-ignition in high-risk areas.

One of the product's most significant real-world deployments was during the Richards Bay Woodchip Fire in November 2023. After five days of burning, the fire was causing extensive damage and releasing dangerous emissions into the surrounding environment, with significant risk of long-term soil and water contamination. Fireblock was contacted to intervene as conventional suppression methods had failed. A temporary mixing unit was set up on-site, and by deploying Fireblock FOREST through the equipment already available, the fire was brought under control within two days, preventing further ecological destruction and restoring safety to the area. Globally, forest and industrial biomass fires remain one of the most destructive environmental disasters:

- The FAO (Food and Agriculture Organization) estimates that around 400 million hectares of forest are affected by fire each year worldwide.
- In 2021 alone, wildfires released an estimated 6,450 megatons of CO₂ into the atmosphere (European Union Copernicus Atmosphere Monitoring Service).
- Fires destroy biodiversity hotspots, reduce soil fertility, and contaminate air and water supplies, causing both economic and ecological damage.
- Economic losses from global wildfires are estimated to exceed USD \$50 billion annually, not including the long-term health and climate impacts.

Fireblock FOREST directly addresses these challenges by offering a sustainable, water-efficient, and environmentally responsible solution that not only controls intense fires but also reduces the likelihood of flare-ups and secondary environmental damage.

APPLICATIONS

FIREBLOCK FOREST IS DESIGNED TO:

- ① Suppress large-scale, high-intensity fires.
- ② Bond to surfaces such as wood, metal, and vegetation, forming a protective heat barrier
- ③ Penetrates undergrowth to prevent smouldering fires.
- ④ Cool down flames quickly, helping firefighters control the blaze faster.
- ⑤ Limits reignition



KEY FEATURES

FEATURE	DESCRIPTION
Non-Toxic & Biodegradable	Safe for humans, animals, aquatic life, soil and water.
Multi-Application	Effective for both active fire suppression and preventive use.
Mixing Ratio	• 10 kg Fireblock Forest makes 3300 L of solution. • Coverage: 16,500 m² total (≈ 177,600 ft²).
High Coverage	Per Litre Coverage: • 1 L covers ≈ 5 m² (≈ 54 ft²). Per Gallon Coverage: • 1 US gallon (3.785 L) covers ≈ 18.9 m² (≈ 204 ft²). • 1 UK gallon (4.546 L) covers ≈ 22.7 m² (≈ 245 ft²).
Compatible with Equipment	Compatible standard fire firefighting equipment, sprayers, hoses, bakkie units.
Environmentally Tested	Proven effective in forestry and wildfire situations, through field deployments and controlled trials. Independent tests confirm biodegradability and non-toxicity. Test reports can be down loaded on our website.
Rapid Action	Forms a cooling, moisture-retentive gel that bonds to surfaces. Slow heat transfer and helps prevent re-ignition.
Superior Adhesion	Adheres to surfaces like trees and vegetation, whereas water runs off, providing a protective barrier. Maintains coverage on vertical and uneven surfaces, reduces runoff and helps prevent re-ignition.
Long Shelf Life	Stores for up to 5 years dry; mixed gel up to 3 years in sealed clean containers

CORE BENEFITS

- Reduces wildfire spread and reignition.
- Enhances firefighter safety by reducing exposure time.
- Instant knock down with powerful cooling and suppression.
- Reduces water consumption while improving firebreak efficiency.
- Supports sustainability and environmental protection initiatives, biodegradable and non- toxic
- Creates a lasting protective barrier on vegetation and surfaces.
- 10 x more effective than water – saves water, time and labour.
- Instant knock down with powerful cooling and suppression.
- Mixed gel can be stored for up to three year, but should be run through a pump monthly to maintain consistency.
- Limits ember reignition.
- Significantly reduces mop up time and labour.

FIRE CLASS

COMPATIBLE

FIRE CLASS	DESCRIPTION	COMPATIBLE
Class A	Wood, paper, vegetation, structural	✓ YES
Class B	Flammable liquids (fuel, oil)	✗ Not suitable
Class C	Electrical fires	✗ Not suitable
Class D	Metal fires (lithium, magnesium)	✗ Not suitable
Class K/F	Cooking oils and fats	✗ Not suitable



FIREBLOCK FOREST

VS WATER

FACTOR	FIREBLOCK FOREST	WATER ONLY
Fire Suppression	Retards combustion, penetrates fuel	Temporary cooling, rapid re-ignition
Environmental Safety	Non-toxic, biodegradable	Safe but less effective
Coverage	Greater area per volume	Requires more water
Firebreak Effectiveness	Long-lasting protection	No lasting effect
Cost Efficiency	Reduces re-application and water usage	High consumption, less efficient



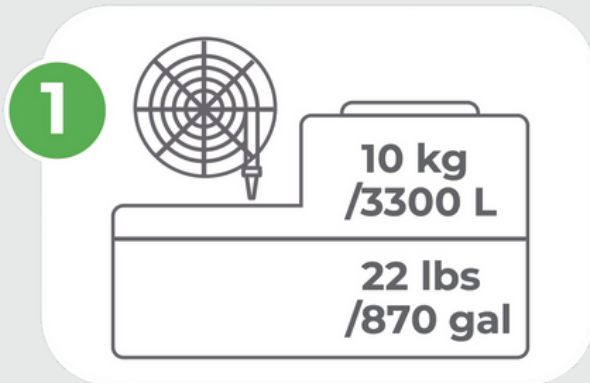
MIXING INSTRUCTIONS

	ACTION	METRIC	IMPERIAL	NOTES
1	Add Fireblock powder to water	10 kg powder → 3,300 L water	22 lbs powder → 870 gal water	Gradually sprinkle powder into tank
2	Spray nozzle back into tank	–	–	Helps mix powder evenly while adding
3	Circulate mixture	4 minutes	4 minutes	Ensure full blending
4	Ready to use	–	–	Premix can be stored in tank up to 3 years; ratio may change depending on water quality

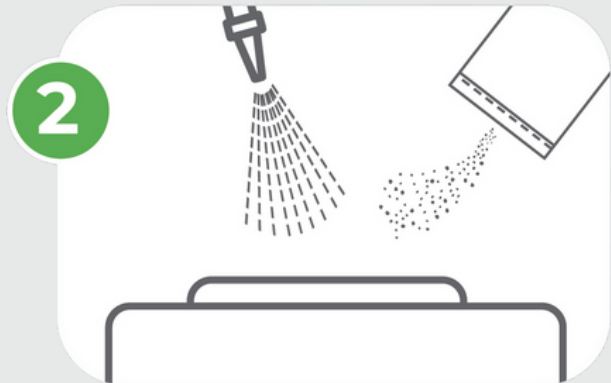


MIXING INSTRUCTIONS

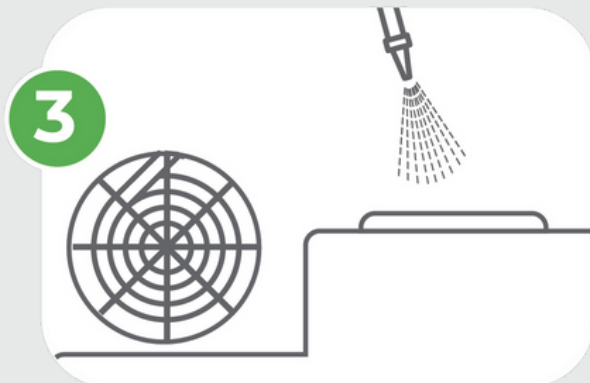
DIRECTIONS FOR USE



How to add 10 kg(22 lbs) of Fireblock to 3300L (870 gal) of water



Spray nozzle back into tank while slowly adding the powder



Circulate for 4 minutes

4

Ready to use in 4 minutes

Best results when premixed

Premix can be stored in a tank for up to 3 years

Ratio might change depending on water quality

Visit www.fireblock.co.za for instruction video

APPLICATION GUIDELINES



METHODS:

- Direct Firefighting: Apply gel directly to flames. Bonds to surfaces, cools fire, forms heat-resistant barrier.
- Preventive Use: Spray unburned areas (grass, bushes) to create protective shield against approaching fires.



AREAS

- Forest edges, plantations, timber stacks.
- Buffer zones around communities, roads, and utilities.
- Firebreak lines and grasslands.



COVERAGE

- 1 Per Litre Coverage:

1 L covers $\approx 5 \text{ m}^2$ ($\approx 54 \text{ ft}^2$).

- Per Gallon Coverage:

1 US gallon (3.785 L) covers $\approx 18.9 \text{ m}^2$ ($\approx 204 \text{ ft}^2$).

1 UK gallon (4.546 L) covers $\approx 22.7 \text{ m}^2$ ($\approx 245 \text{ ft}^2$).

STORAGE AND MAINTENANCE

01 ▶

MIXED GEL

- Can be stored for up to 3 years.
- Circulate monthly to maintain consistency.

02 ▶

UNMIXED POWDER

- Store sealed in original packaging.
- Keep in cool, dry place to prevent moisture contamination.

03 ▶

CLEANING

- Remove gel from surfaces with water after fire risk subsides.
- Flush pumps and hoses with fresh water after use.

SAFETY INFORMATION

- Fire Suitability: Only for Class A fires. Not for electrical or chemical fires.
- Skin & Eye Contact: Avoid direct contact; rinse thoroughly with water if exposed.
- Ingestion: Do not ingest.
- Inhalation: Avoid breathing powder dust, wear mask when mixing in large quantities.
- Disposal: Dispose of unused product per local regulations.
- PPE: Wear gloves, goggles, and standard fire protective clothing during handling.
- Water Systems: Safe around water tanks, boreholes and irrigation.
- Toxicity: Non toxic safe for people, animals and the environment.

Material Safety and Data Sheet

Contact FIREBLOCK ® for SDS Safety Data information sheet or [click here](#).

Warranty Information

Fireblock Forest comes with a 1 year warranty against manufacturing defects. This warranty does not cover misuse, improper storage or accidental damage.

For assistance or claims, contact our customer support team at Fireblock (Pty) Ltd:
support@fireblock.co.za

Emergency Contact Information

In case of a fire emergency beyond the capacity of this product, immediately evacuate and contact your local fire department.

Liability Disclaimer

Use of Fireblock Forest constitutes acceptance of the following:

Fireblock (Pty) Ltd disclaims liability for indirect damages, operational losses, or environmental penalties arising from improper use. Users must confirm suitability and regulatory compliance for their specific application.

Always follow manufacturer guidelines and local legislation. The manual serves as a guidance based on field tested application procedures. Site conditions may require adaption of the outlined practices. Users must ensure compliance with local safety regulations, environmental legislation and site-specific risk assessments..

INFORMATION AND SUPPORT

For copies of technical data sheets, videos or certificates visit our website:
www.fireblock.co.za

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