

- **A REVOLUTION IN
FIRE EXTINGUISHING!**

FIRE SUPPRESSION PRODUCT

Only one in the world!

ADG GROUP
MACRO



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Fire is no longer a disaster,
because;
3-F



**EXTINGUISHES
QUICKLY**



**COOLS DOWN
FAST**



**CREATES A
BARRIER**



ECO-FRIENDLY

8

Outstanding Features of the 3-F Fire Extinguishing and Cooling Product

- 1 Effective for Class A (Rubber, Wood, Paper, Sponge, etc.), Class D (Metal fires, provided the product is used in its pure form), and Class L (Lithium Battery fires, provided it is used in its pure form). Class A fires reach an average of 800°C - 1200°C; Class D fires average 2000°C - 2200°C; Class L fires average 1300°C - 1500°C.
- 2 Extinguishes rapidly.
- 3 Reduces the temperature below 60°C within just 30 seconds after extinguishing. This completely prevents re-ignition. (Re-ignition requires 240°C.)
- 4 Flexible dosing for Class A fires: Mixed with water at a ratio of 3-6% in fire trucks, 10-25% for forest fire extinguishing, and 25-50% for creating a protective barrier. It never foams.
- 5 Effective up to 3000°C.
- 6 100% Eco-friendly. It causes no harm to living organisms in nature. It does not even harm natural water bacteria if mixed with drinking water. (According to TÜBİTAK and TÜRKAK reports, its toxicity values are well below the limits set by global standards.)
- 7 Sakarya University has certified that the extinguishing and post-fire cooling performance of 3-F is nearly 10 times more effective than traditional water and foam.
- 8 The first and only product approved by the Turkish Standards Institution (TSE) with specific "Criteria" and "Certification". It is the only patented product in its field, approved by the Turkish Patent and Trademark Office. 3-F is unique and has no equivalent in the world.

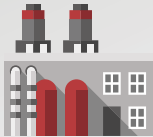
3-F APPLICATION AREAS



**Forest and
Rural Area Fires**



**Residential
(Urban) Fires**



**Industrial
Facility Fires**



**Military
Facility Fires**



Vehicle Fires

3-F USAGE METHODS

GROUND VEHICLES

Fire Trucks

Rapid Response Vehicles

Fire Suppression Tankers

Backpack Pumps

AIRCRAFT

Helicopters

Planes

3-F OPERATIONAL EQUIPMENT

1

Dual-Engine Backpack Pump



Portable backpack pumps are ideal for localized fires that may expand due to weather conditions. Adding "3-F" to a 15–25L pump achieves an effectiveness equivalent to 150–250L of water. Since water and product usage is limited, the concentration can be increased; a 1/3 product ratio is recommended for these applications.

2

Motorized Firefighting Unit (Motopump)



- Static Painted Steel Chassis
- Suction Filter
- Tank Capacity: 100 L / 200 L / 500 L / 1000 L (With Level Indicator)
- Polyethylene Tank (UV Resistant)
- 3.00 x 60 Solid Wheels
- Custom Design Firefighting Nozzle
- Hose Reel (50m Hose)
- Dimensions: 80x104x99 mm
- Weight: 65 kg
- Engine: Castello, CS-200

3

Foam Inductor



15-25 Proportioner

MOBILE FIRE POOL

4

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7

Provides an Alternative Water Source:

Ideal for fire zones with limited or no water supply.

Time and Logistics Savings:

Reduces cycle times and enhances operational efficiency.

Provides Aerial Support:

Reduces helicopter dependency on stationary water sources.

Geographical Versatility:

Can be deployed in diverse terrains, including mountainous, coastal, and forested areas.

Supply Point for Ground Vehicles:

Provides a refilling station for fire trucks and air tankers.

With its extensive operational advantages, HelixPool does not only intervene in active fires but also plays a vital role in fire season preparedness and regional deployment strategies.

EUROPEAN FOREST FIRES: 1-YEAR PROFIT/LOSS SIMULATION

Parameter	Europe without 3-F (Current)	Europe with 3-F (Estimated)	Difference / Gain
BurnedArea(Annual)	~500,000 Hectares (EU 2023 Average)	~50,000 - 75,000 Hectares	85% Less Loss
Firefighting Cost	~€2.5 Billion (Fleet, Fuel, Personnel)	~€750 Million	€1.75 Billion Savings
Rehabilitation Cost	~€5 Billion (Reforestation)	~€750 Million	€4.25 Billion Savings
Cooling Time	Takes Days/Weeks	Drops below 60°C in 30 seconds	Time and Labor Savings
Re-ignition Risk Very	Very high risk (Standby crews remain)	Almost non-existent	Zero Secondary Fires
Ecosystem Destruction	Massive (20+ Million Tons of CO2 Emissions/Year)	Minimum Level	Guarantee for Future Generations

Current Despair vs. The 3-F Revolution (Using a 25% ratio)

Sector / Field	Current Europe (Traditional Methods)	Europe with 3-F Regulations
Factories & Industry	A fire breaks out; before the fire department arrives, machinery temperatures reach 1500°C, melting metal. Even if extinguished, the equipment is ruined. The factory remains closed for 6 months.	With 3-F, production does not stop. Billion-euro EU industrial investments are protected without interruption.
Hotels & Tourism	A kitchen fire occurs in a Mediterranean resort. Foam is everywhere, ruining carpets and furniture. The hotel is evacuated mid-season.	The tourism season is not interrupted. The reputation of Europe's leading hotel chains remains untarnished.
Hospitals & Public Buildings	Evacuation chaos ensues during a fire. Toxic gases and foam smoke choke patients. Million-euro MRI machines are destroyed by water and foam damage.	Effective even in the toughest metal fires. Sensitive medical equipment is not damaged by water.
Schools & Dormitories	Old-style extinguishers are hard to use; students do not know how to operate them. Improper intervention fuels panic and the fire.	The life safety of children cannot be sacrificed to traditional bureaucracy.

Why 3-F?

(What If 3-F Was Used That Night at the London Grenfell Tower Fire? 72 Lives Could Have Been Saved!)

The Problem at Grenfell Tower (2017)	The 3-F Solution (Why It Should Be Mandatory?)	Dayanak (3-F in 9 Maddesi)
Extreme Heat and Spread: The polyurethane and aluminum cladding on the exterior turned the 24-story building into an inferno within seconds.	Reduces the temperature below 60°C in just 30 seconds, preventing the fire from spreading across the facade and jumping between floors.	Feature 3
Unextinguishable Flames: The London Fire Brigade responded quickly, but the cooling power of pressurized water was not enough for the massive heat at that height.	Nearly 10 times more effective than water and foam. A single intervention equals the power of 10 fire trucks.	Feature 7
Toxic Gas and Panic: The majority of the 72 victims did not die from the flames, but suffocated from the toxic smoke emitted by the burning insulation materials.	Effective up to 3000°C, this product "smothers" the fire right at its inception, preventing the formation of that deadly toxic smoke.	Feature 5
Equipment Inadequacy: As the exterior plastic and metal (aluminum) components burned, standard extinguishers reacted and became completely ineffective.	Delivers absolute results even in Class A and Class D (Metal) fires. It extinguishes burning aluminum panels instantly.	Feature 1

Defense Industry & Ports: 3-F Security Shield Analysis

Sector / Asset	BEFORE 3-F (Current Risk)	AFTER 3-F (Strategic Shield)	Why 3-F?
Ammunition Depots & NATO Hangars	A single spark triggers a chain explosion. Water cannot cool the ammunition, and a metal fire (Class D) melts the building.	Instant intervention; temperature drops below 60°C in 30 seconds. Explosion risk is eliminated before it even begins.	Thanks to its 3000°C resistance, it prevents ammunition from heating up and detonating.
Warships & UAV/UCAV	A fire on a ship means losing that ship (and its crew). Water destroys electronics, and foam cannot be cleaned.	An intervention nearly 10 times more effective than water and foam. With pinpoint cooling, the ship remains operational.	Since the product is eco-friendly and leaves no residue, it protects sensitive electronic devices.
Ports & Container Yards	If a chemical-filled container burns, it cannot be extinguished for days. Traffic stops in major ports like Rotterdam or Antwerp.	Unrivaled in Class A and D fires. It reduces the risk of spreading between containers to zero in seconds.	Thanks to its anti-reignition feature, an extinguished container will not catch fire again.
Fuel Terminals	Trying to extinguish it with water can spread the fire. Massive explosions are inevitable.	By adding 15%-25% to water for barrier purposes, the fire is surrounded. The fire is trapped.	Where water evaporates and disappears, 3-F continues to smother the fire.

MINIMUM Total Volume to Protect Europe Against Fire with "3-F"

Sector / Application Area	Strategic Scope	Recommended Annual Volume (Estimated)	Technical Justification / Usage Rate
European Forest Agencies & rescEU	30,000+ Fire Trucks and Aircraft	40,000 - 75,000 Tons	Mixed with water at 3%-6% in fire trucks, 10%-25% for pool extinguishing.
Industry & Industrial Zones	4,000+ European OIZs and Critical Factories	240,000 - 300,000 Tons	Mixed with water at 25%-50% for barrier purposes and pure (100%) use in Lithium Battery (Class L) fires.
Airports & Aviation	500+ Airports (Frankfurt, Heathrow, etc.) + Fleets	80,000 - 110,000 Tons	25%-50% usage rate in indoor areas. Smothering toxic gas and flames with a response 10 times faster than water and foam.
Hotels & Public Buildings	200,000+ Facilities, Hospitals, and Schools	250,000 - 500,000 Tons	25%-100% usage rates; a solution that extinguishes without sinking the ship and harms no living organism in nature (TÜBİTAK approved).
Maritime & Ports	15,000+ Ships and All Port Operations	6,250 - 35,000 Tons	Pure (100%) use in ammunition and metal (Class D) fires, providing a protection shield up to 3000°C.
Defense Industry & NATO	Europe-wide Ammunition Depots and Strategic Bases	60,000 - 90,000 Tons	Mühimmat ve metal yangınlarında (D sınıfı) saf (%100) kullanım ile 3000°C'ye kadar koruma kalkarı.
GRAND TOTAL	EUROPE-WIDE STRATEGIC RESERVE	~676,250 - 1,110,000 Tons	EUROPEAN FIRE SHIELD OPERATION

Instant Intervention Power: In the critical 15 minutes after a fire breaks out, 3-F achieves what water cannot, dropping the temperature below 60°C in just 30 seconds. This reduces the probability of forest fires in Europe's Mediterranean basin spinning out of control by 90%.

Logistical Efficiency: University laboratories have proven it to be nearly 10 times more effective than water and foam. This means that 20,000 tons of 3-F in the EU civil protection fleet is actually equivalent to a massive 200,000 tons of traditional extinguishing power.

Zero Re-ignition Risk: It doesn't just extinguish the fire and leave; it completely prevents the area from reigniting by drastically lowering the temperature. In tragedies like the London Grenfell Tower or the forest fire disasters in Spain, the reignition of flames from hidden embers was the most deadly factor. 3-F completely eliminates this risk.

"Zero Delay" in Aviation: The fact that it never foams ensures that runways at busy European airports like Charles de Gaulle and Schiphol can be reopened immediately after an intervention in an aircraft fire. This completely eradicates indirect damages to the European economy (delays, cancellations, and loss of reputation).

Preventive Security Shield and 5-Year Strategic Reserve Life

3-F is not merely an extinguisher; it is also a proactive security shield. When sprayed on high-risk areas as a precaution before a fire (provided there is no precipitation), it forms a strong barrier on the surface, reducing the probability of ignition by 80%. With a shelf life of approximately 5 years, it provides a long-term, cost-effective, and reliable strategic reserve opportunity for institutions, states, and militaries.

Electric Automobile and Lithium (Battery) Security

It is a game-changer in lithium-ion battery fires where traditional methods fall short. It secures the mobility of the future by instantly halting "thermal runaway" reactions, which are the greatest risk in electric automobiles, battery production facilities (Gigafactories), and strategic energy storage areas.

Operational Continuity (Minimum Downtime)

It leaves no toxic waste post-fire and requires no extra chemical cleaning procedures. It prevents operations from shutting down for weeks in ports, airports, hospitals, and factories. Because it does not cause flooding or corrosion, it prevents damage to the facility and intact inventory, thereby minimizing millions of euros in losses caused by business interruption.

European Green Deal & Water Conservation

With its TÜBİTAK-approved, 100% eco-friendly formula, it is already prepared for Europe's tightening environmental norms and global ESG (Environmental, Social, and Corporate Governance) standards. Through its massive performance in extinguishing speed, it prevents the waste of millions of liters of clean water during a fire, directly contributing to environmental sustainability.



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