JohnDow Industries™

EV & HYBRID
SAFETY & REPAIR

VEHICLE FIRE BLANKET

Suppress flames, fumes
and fires from spreading
in your shop

EV & HYBRID SAFETY & REPAIR

JDI-VFB1
JDI-VFB3326
JDI-WRFB

VEHICLE FIRE BLANKET

Vehicle fires are not only dangerous, extremely damaging and toxic; **they can also be deadly.**

A vehicle fire can completely destroy a shop and its business in minutes. With appropriate planning, safety precautions not only save lives -- they can also save your business.

A JohnDow Vehicle Fire Blanket enables you to suppress Electric (EV), Hybrid, and Internal Combustion Engine (ICE) vehicle fire flames and fumes. The high temperature-resistant material prevents the fire from spreading and damaging surrounding vehicles and property in your shop. It also deprives vehicle fires of oxygen and minimizes the potential combustion reducing the fire temperature.

UNDERSTANDING HOW ELECTRIC VEHICLES CATCH FIRE

Lithium-ion battery fires are very difficult to extinguish and traditional fire repellents do not work due to thermal runaway. *Thermal runaway* in an electric vehicle occurs when its battery's internal reactions cause a self-reinforcing cycle of increased heat production. This means the battery continues to get hotter and hotter by itself until the battery reaches its limits or experiences a catastrophic failure like a fire.

An EV fire can burn even without oxygen due to its lithium-ion battery

Fires reach extremely high temperatures due to thermal runaway

Fires emit toxic fumes and gasses

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THE BENEFITS:

- Limits damage and spread of fire to surrounding areas
- Use on any passenger vehicle including EVs, Hybrids and ICE vehicles
- Suppresses fire and toxic smoke derived from combustion
- Deploy in under a minute with only two people

PERFECT FOR:

- Automotive Repair Facilities
- Fire Fighters
- Parking Lots/ Underground Parking
- Service Stations
- EV Charging Stations

SPECIFICATIONS

	JDI-VFB1 Blanket	JDI-VFB3326 Blanket	Fire Blanket Wall Rack
Size	19.5' x 29.5' (6x9M) 575 sq. ft	26' x 33' feet (8x10M) 858 sq. ft	33.5"H x 16"W x 8"D
Material	Fiberglass & Flame-resistant coating		Powder-coated steel
Weight	61.7 lbs.	86 lbs.	19 lbs.

WATCH THE ACTION:

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COMPARE YOUR OPTIONS

WHAT TO KEEP IN MIND WHEN COMPARING

While you never hope to experience a situation where you need a vehicle fire blanket, you still need to prepare for one. Luckily for you it can be easy to narrow down which vehicle fire blanket is best for you by identifying the scenario where you would use a vehicle fire blanket. For example, an Internal Combustion Engine (ICE) vehicle burns at a different temperature than an Electric Vehicle (EV) and you cannot extinguish EV fires using standard methods.

Additionally, here are some other things to consider:

- Weight
- Flexibility
- Size (both for the size of vehicles you work with and extra fabric on the ground to enclose the vehicle fire as much as possible)
- Thermal resistance
- Ease and process of deployment
- Resistance to glass and explosions
- Melting elements that may adhere to the blanket
- Surrounding materials that may snag, tear or adhere to the blanket
- Acids or other corrosive liquid exposure
- Price

SINGLE-USE VS. MULTI-USE: WHICH IS BETTER?

There are single-use and multi-use vehicle fire blankets on the market, but which one should you get? And is one better than the other?

At first glance, it seems more economical and reasonable to get a product that is multi-use. Both will suppress a vehicle fire, and both will prevent a fire from spreading to nearby areas. However, both blanket types will also have damage after usage, like burns or holes, elements melted or stuck during combustion, and contamination with propellants and corrosive acids like carcinogens, etc.

For a multi-use blanket, you will need to go through a very specific decontamination process to clean the entire blanket, even if there isn't visible damage to a certain area (It can still be contaminated with oils, acids, etc.). You will also need to complete a thorough visual test to ensure there isn't any damage to the blanket before re-use. For most cases, this is not feasible or reasonable and we highly recommend only using single-use blankets.

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The most common materials used for vehicle fire blankets:

- Silica-based fibers
- Fiberglass-based fibers
- In some cases, Quartz-based fibers

When these fibers become a fabric, they go through different processes to enhance resistance and gain new features like waterproofing, resistance to abrasion, etc. All fire blankets are single use, waterproof, and use flame-retardant fabrics that withstand high temperatures but may have different features.

			Competitor 1	Competitor 2	Competitor 3
Size	19.5' x 29.5' (6x9M) 575 sq. ft	26' x 33' feet (8x10M) 858 sq. ft	19.5' x 26.2' (6x8M) 516 sq. ft.	19.5' x 26.2' (6x8M) 516 sq. ft.	19.5' x 26.2' (6x8M) 516 sq. ft.
Material	Fiberglass & Flame-resistant coating		Pyroxene with polymer silicone coating	Specialized quartz material & silicon polymer coating	Silicate fabric & mineral coating
Total Weight	61.7 lbs.	86 lbs.	61.7 lbs.	55.1 lbs.	66.1 lbs.
Weight Per Square Foot	0.10 lbs./sq. ft.		0.12 lbs./sq. ft.	0.10 lbs./sq. ft.	0.13 lbs./sq. ft.
Thickness	0.41 mm		0.40 mm	--	0.70 mm
Temperature Resistance	Peak: 1200°C Continuous: 700°C		Peak: 1600°C Continuous: 800°C	Peak: 800°C Continuous: 700°C	Peak: 1300°C Continuous: 1,100°C
Resistance to abrasion	High		Low	Low	Low
Flexibility	High		Low	Low	Low
Ease of Deployment	Best		Better	Better	Good
Price	$$		$$	$	$$$$

Note: *The max inside head-height cabin temperature in actual EV fires and ICE vehicle fires generally peak at 950°C (National Research Council Canada).*

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VEHICLE FIRE BLANKET

More electric and hybrid vehicles on the road means repairers will see more electric vehicles in their shops. With an increased risk of electrification, safety needs to be the focus at all times.

SAFELY HANDLE AN ELECTRIC VEHICLE FIRE USING A VEHICLE FIRE BLANKET

Using two people, unroll the blanket on the ground.

Each person grabs a handle and pulls over vehicle, from front to back.

Cover vehicle completely and tuck under vehicle.

DO NOT REMOVE.
Only the Fire Department should determine when to remove.

A Vehicle Fire Blanket is the most efficient way to isolate an EV fire. It immediately isolates the fire/fumes and prevents spreading. While it will slowly smother/contain the fire, it will not put out an EV fire. It will control the fire until the Fire Department arrives.

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