

Electric vehicle fire blanket

Contains electric and hybrid vehicle fires
Minimises collateral damage



Thermal runaway fires cannot be extinguished by conventional means

The most common form of fire in electric or hybrid vehicles is when the high energy battery is damaged, or a manufacturing fault results in a short circuit.










The battery can then go into '**Thermal Runaway**'. This is a phenomenon where damaged cells heat up rapidly to such an extent that a fire starts. The fire then compromises adjoining cells and a '**domino effect**' occurs spreading to the whole battery array.

The electrolyte in a Lithium-Ion battery usually contains hydrocarbon solvents which fuels the fire. If unchecked, extremely high temperatures can result.





With the continuing rise in electric and hybrid vehicle sales, more and more settings need to consider safety in the event of fire:

-  **Motor dealers**
-  **Charging stations**
-  **Car repairers**
-  **Car parks**
-  **Ferries**
-  **Recovery services**
-  **Airports**
-  **Road tunnels**
-  **Shopping centres**

Utilising an EV vehicle fire blanket minimises the combustion potential by depriving the fire of oxygen. This inhibits the fire and consequently temperatures drop rapidly, reducing potential damage to surrounding vehicles and property.

The EV vehicle fire blanket can be used multiple times to quarantine suspicious vehicles or to pre-empt fire risk situations. If a significant fire develops the blanket should be cleaned and checked for damage before storing.

The EV vehicle fire blanket can be easily deployed by two people.



Physical data

Size: 8 x 6 metres (48m²)
Weight: 24kg
Application: ICE, electric & hybrid vehicles up to SUV size
Storage: Personalised, wall mounted storage box available

Technical data

Material: Silica quartz fabric treated with fire retardant coating



Property	Description	Value	Tolerance	Test Standard
Fabric Weight	-	475gsm	± 10%	EN 12127
Tensile Strength (typical)	Warp Weft	4800 N/5cm 3700 N/5cm	± 5% ± 5%	ISO 4606
Electrical Burner Test	-	MO	-	EN 13501
Fabric Melting Point	-	>800°C	-	-
Reaction to Fire*	-	B-s1, d0	-	EN 13501-1:2007 + A1:2009
Material Fire Test**	-	Class 0	-	BS 476, Part 6+7
Fire Resistance***	Intertek Test	Up to 1,000°C	-	Non-Available
Hydrocarbon Resistance	-	Rating Number: 7	-	BS EN ISO 14419: 2010
Hydrostatic Pressure Test	Waterproof	492cm/H ₂ O (Mbar)	-	BS EN 20811: 1992 / ISO 811

***Reaction to Fire:** Based on information assimilated from the fabric manufacturers technical database, definitive ISO testing is currently in progress.

****Material Fire Test:** Based on information assimilated from the fabric manufacturers technical database, definitive ISO testing is currently in progress.

*****Fire Resistance Testing:** Samples were submitted to Intertek® and furnace testing to 800°C was conducted. The material, whilst compromised, retained its structure and was deemed effective for the intended purpose.

NOTE: Whilst EV fires can reach core temperatures exceeding 1,300°C, the surface temperature of the vehicle body will be much lower than this. Once deployed the EV Car Fire Blanket reduces temperature rapidly by depriving the fire of Oxygen. This allows the EV Car Fire Blanket to perform effectively within its fire resistance ratings.

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