



BAVARIA®

Fire Fighting Solutions

Special extinguisher Tornado 50-Pyro 5

We not only know, how to extinguish good,
but also know what extinguishes good!

Trainee center

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PyroBubbles® to extinguish

PyroBubbles® as a extinguishing agent is applicable for the fire classes A, B, D and F which was positively tested from the MPA Dresden in accordance with the DIN EN 3-7.

Characteristics:

- Low bulk and grain density

The grain sizes between 0,5 - 5,0 mm build a dark coating and provide a dense sticking effect.

- Permanent cooling characteristic by lithium-ion battery or cells

Due to the high heat capacity, the PyroBubbles® have a cooling effect. Throughout this, the thermal reaction is going to be either reduced or increased. Even hours later, the PyroBubbles® are still having a cooling effect on the battery/cells. In case of a battery fire, the PyroBubbles® shall be left on the battery in a 10 cm cover.

- Low thermal and also electrical conductivity by a high melting point

PyroBubbles® are characterized by a low thermal conductivity and an insulating electrical conductivity ability.

Up to a temperature, more than 1050 °C, the PyroBubbles® melt and start to build a thermally insulting layer around the metal fire.

- Reduction of environmental and health hazards

It reduces the flammable and harmful reaction gases in a thermal runaway and also in the case of fire. Throughout this the re-ignition is going to be reduced, or even prevented. The environmental hazards by a battery/cell fire are enormously reduced. The PyroBubbles® are also suitable for binding the hydrofluoric acid and electrolyte which decreases the health and also the environmental risks.

- No consequential damages of the PyroBubbles®

PyroBubbles® cause no water damages or any other types of corrosions.

- Storable and stable

PyroBubbles® are hydrophobic and resistant to aging. Therefore they are maintenance-free and only generate a minor maintenance costs. The granules are thermally and chemically very stable.

PyroBubbles®

PyroBubbles® are patented development of the Genius Developent company. The hollow glass granules consist of 100% inorganic substances and it is assigned to the material class A. The main ingredient of the agent is silicon dioxide. Because of its low density the granules are flowing on the surface of the flammable liquid, which ensures a strangling extinguishing effect. At the same time, thanks to its high absorbing ability of the heat energy, it also has a cooling effect and isolates throughout its excellent insulating ability the fire at its source. The hollow glass granulation made of silicon dioxide is environmentally friendly and causes no health damages at all. The agent is also reusable and is four times lighter as the gross density of water and approx. eight times lighter as sand.



Application possibilities as an agent :

- Metal fires

PyroBubbles® are suitable for the extinguishing of all metal fires (aluminium, magnesium etc.). Even thermite fires with temperatures above 2000 °C could be easily extinguished. The extinguishing effect is based on several components, firstly the energy extraction during the melting, also the high heat storage of the PyroBubbles® (cool effect) as well as the from this process resulting insulating and sealing coverage around the flames/object (strangulating effect).

- Foundries, melting and hardening baths

Also applicable for the higher temperature range. Throughout the high embroidery the fire is extinguished.

- Production machines/testing laboratories

Even in the case of an enormous heat development, the break out of the fire is going to be prevented.

- Museums and archives

PyroBubbles® do not cause any extinguishing damages (water damages, corrosion) and therefore they are suitable for the usage in museums and archives, galleries, art exhibitions, banks and so on.

Description	Item number	Stand-ring	Press ure gauge	LE	Rating DIN EN 3	Piece per pallet	Weig. in kg	Length x Width x Height in mm	Duration (s) Range (m) approx.	Accreditation
Tornado-50 Pyro 5	15132	-	-	o.A	D	2	70,00	560x480x1110	60,0 / 4	BAV-P02/18

- Temperature: -20°C till + 60°C
- External cartridge operated, with a 3 ltr. pressurized air cylinder
- Light weight of the extinguisher filled with 12,5 kg PyroBubbles®
- Attractive design and easy usage.
- Good metering and a gentle application of the extinguishing agent agent, throughout the constant low pressure of 2 bars through the built in pressure regulator.
- Possible interruption of the extinguishing process and a possible intermittent use throughout the ball valve.
- With a 4 m range of throw, the application could be made from a safe distance from the source of the danger.
- As a standard the extinguisher is delivered with a form stable meter hose, with a wide diameter, which allows a smooth application and a maximum possible range of usage
- The cylinder is mounted on a chassis with two solid rubber wheels, mounted on galvanized steel rims. It guarantees not only an excellent stability but also flexibility.
- Closure made of chromed brass with an additional safety valve mounted
- The large cylinder opening makes the maintenance easier
- The polyester coating of the cylinder provides a more outstanding and long-lasting corrosion protection
- Suitable for electrical objects up to 1.000 V with a min. dist. of 1m



Neues Produkt im Sortiment:

Lithium X3/X6/X9

Das neue Metallbrand- und Lithium- Löschgerät mit 3/6/9 ltr. Löschenflüssigkeit

Der Lithium X-Löscher von BAVARIA ist geeignet, Metallbrände fast aller Art wirkungsvoll zu löschen und vor allem vor Ausbreitung zu schützen. Gefüllt mit hochwirksamem, umweltfreundlichem Löschmittel ermöglicht die Lithium X-Serie, hochaggressive Feuer von Lithium, Magnesium sowie Aluminiumlegierungen wie auch anderen Metallen zu löschen.

Was beinhaltet das Löschmittel?

Das Löschmittel ist eine wässrige Dispersion, bei der natürliche Silicium-Kristalle in wässriger Lösung in der Schwebe gehalten werden. Die mikroskopisch feinen Plättchen gehören zu den Mineralien der Silikate. Beim Aufsprühen auf das brennende Metall verdampft das Wasser und die mikroskopisch kleinen Silicium-Plättchen quellen auf und verschmelzen zu einer undurchlässigen Sperrsicht, die das Feuer isolieren und dadurch auch die thermische Abstrahlung oberhalb dieser Sperrsicht sofort auf unter 100°C absenken. Der LithiumX-Löscher von BAVARIA bringt das Löschmittel in einem feinen Film auf das Brandgut auf, der sofort zu einer harten, mineralischen Isolierschicht verschmilzt.



Das Mittel eignet sich für klassische A- und D-Brände. Das Auflade-Gerät besteht aus einem beschichteten Stahl-Behälter, dem Druckhebelventil mit innenliegender Treibgaspatrone sowie dem amontiertem Schlauch mit spezieller Löschlanze und speziell für das Löschmittel entwickelter Feinsprühdüse.

- Funktionsbereich: +5°C + 60°C
- Unterbrechung des Löschstrahls und stoßweiser Einsatz möglich
- Hochwertiger Wandhalter zur Befestigung, serienmäßiger Standring.
- Ventil aus hochwertigem, glasfaser-verstärkten Kunststoff mit Alu- Überwurfmutter, schwarz beschichtet.
- Innenliegende, wieder befüllbare Druckgaspatrone
- Hochwertiger EPDM-Schlauch mit Gewebeeinlage und Löschlanze
- Durch Polyesterbeschichtung des Behälters hervorragender und langlebiger Korrosionsschutz.
- Innenbeschichtung aus hochwertigem Kunststoff gewährt ausgezeichneten Langzeitschutz gegen Rost.
- Funktionsdauer abhängig von der Größe 65 bis 180 sec.
- Spritzweite ca. 2-3 m
- Geeignet für elektrische Anlagen bis 1.000 V, Mindestabstand 1m.



Lithium X3/X6/X9

Lithium X3/X6/X9

Bezeichnung	Artikel-nummer	Stand-ring	Prüfobjekt	Rating	Gewicht	Länge x Breite x Höhe in mm
Lithium X3	14609	X	Magnesiumspäne in Anlehnung an DIN EN 3-7, NA.2; Al, Li, Fe,	A,D	6,2 kg	300x150x400
Lithium X6	14610	X	Magnesiumspäne in Anlehnung an DIN EN 3-7, NA.2; Al, Li, Fe,	A,D	11,2 kg	240x155x580
Lithium X9	14611	X	Magnesiumspäne in Anlehnung an DIN EN 3-7, NA.2; Al, Li, Fe,	A,D	15,6 kg	250x190x590

The new metal- and lithium extinguisher 3/6/9 ltr. with liquid-extinguishing agent

The LithiumX-extinguishers of BAVARIA are suitable for extinguishing metal fires of almost every kind. They are not only able to extinguish effectively but also to protect especially against the spreading of the fire. Filled with the environmentally friendly liquid agent. LithiumX is able to fight highly effective against highly aggressive fire of lithium, magnesium and aluminum alloy as well as other metals.

What is exactly the liquid-agent?

The agent is Aqua-Silicium-Dispersion. Here are kept natural vermiculite crystals in aqueous solution in balance. The microscopically fine flakes are part the minerals of silicates. As it is sprayed on the burning metal, the water evaporates and the microscopic silicium platelets start to swell and melt into an impermeable barrier layer which isolates the fire and thereby immediately lower the temperature and the thermal radiation to below 100 ° C underneath the extinguishing agent.

The LithiumX extinguisher from BAVARIA brings the liquid-agent in a fine film form on the burning material, after that the agent turns immediately into a hard, mineral insulation.

The agent is suitable for classic A and D fires.

The charging device consists of a coated steel cylinder, the pressure lever valve with internal cartridge with propellant and the hose with special piercing nozzle which was specially developed for fine spraying.

- Operating temperature: + 5 ° C + 60 ° C
- Interruption of the extinguishing process is possible with the lever.
- High-quality wall holder, inclusive standard foot ring.
- A high quality valve from fiberglass-reinforced plastic with aluminum nut, black coated.
- Internal, refillable compressed gas cartridge
- High-quality EPDM hose with fabric insert and piercing nozzle
- An excellent and long-lasting corrosion protection through the polyester coating of the cylinder.
- The internal high quality plastic coating gives an excellent long-term protection
- Discharging time, depends on the size, 65-180 sec.
- Effective range of use about 2-3 m
- Suitable for electrical installations up to 1000 V, with a minimum distance 1m.

Get further details from: info@bavaria-firefighting.de

Stand: 05/2017



Water Glue

Adherent and heat absorbing gel with fire extinguishing and protective characteristics

Fire class A and lithium-ion batteries

The gel, which is used in the Water Glue extinguisher serie, can be not only used to extinguish the class A fires, but also particulary for the lithium-ion batteries. The agent, GlueX, not only has a great extinguishing but also a highly protective characteristic. The gel adheres smoothly to the vertical and even to the extremely even surfaces. Throughout this, from one hand a high heat extraction is going to be reached, from the other hand an atmospheric oxygen graduation. Because of these highly effective layers of GlueX, the object is protected from the heat radiation and inflammation.



*right side covered with Water Glue.

Water Glue is mostly recommended for companies, which are working with lithium-ion batteries. It does not matter, whether the batteries are stocked or even produced. The chain reaction of the lithium-ion batteries can be kept under control. Furthermore, this gel is strongly recommended in recycling companies and in the plastic industry.

Efficient and also preventive !



Description	Item no.	Foot ring	pressure gauge	LE	Rating DIN EN 3	Piece per pallet	Weig. in kg	Length x Width x Height in mm	Duration (s) Range of width (m) approx.
Magnum Water Glue 6	15213	X	-	4	13 A	40	11,50	280x165x575	26 / 6
Magnum Water Glue 9	15214	X	-	6	21 A	25	16,70	300x190x575	35 / 6
Maximus Water Glue 50	15215	-	-	o.A	A	2	94,00	485x465x1180	125 / 7

Magnum Water Glue 6/9

- Temperature: from +5°C to +60°C.
- Throughout the extinguishing pistol, an intermittent and also a repeated operation possible.
- The polyester coating of the cylinder and also the polymer inner coating provides an excellent and also long lasting corrosion protection.
- Suitable for electrical systems up to 1.000 V minimum distance 1m.
- All the variations of the Magnum series are identically constructed, which reduces the number of stocked spare parts, which are needed.
- Thanks to the identical operating concept, the user has a huge time advantage, in case of fire.
- Activation button for the safe and easy usage.
- Valve made of high quality glass fiber reinforced plastic, with a black coated aluminium nut.
- Internal and also refillable pressurized gas cartridge with a stainless steel screwing.
- Equipped with a high quality EPDM-hose and also with a durable, easy to use extinguishing pistol and foam nozzle.

Maximus Water Glue 50

- As standard, we deliver the extinguisher with a 10 m high pressure hose for the easy usage.
- The cylinder is mounted on a chassis with two plastic wheels and with rubber tread - this guarantees not only excellent stability, but also great agility.
- Solid cylinder, without welded parts, with a central opening.
- The big opening of the cylinder makes the maintenance easier.
- Valve made of brass, combined with an aluminium union nut, coated black and an additional safety valve.
- External cartridge operated with 3 ltr. nitrogen cylinder.
- Optimal operating weight of the extinguisher, filled with 50 liters of GlueX.
- Eye catching design and easy usage.



Comparison of Colt P 12 M, LithiumX, Water Glue and Tornado 50 Pyro

BAVARIA®
Fire Fighting Solutions

	Colt P 12 M	Lithium X 3 / 6 / 9	Water Glue 6 / 9 / 50**	Tornado 50 Pyro
Operational time / temperature range	65 sec. / -20°C to 60°C	65/120/180 sec. / +5°C to 60°C	26/35/150sec. / +5°C to 60°C	45 sec. / -20°C to 60°C
For various metal fires such as:	Lithium, potassium, sodium, aluminum, magnesium and their alloys	Lithium, magnesium, aluminum and their alloys	not for metal fires	Lithium, magnesium, aluminum and their alloys, thermite
Suitable for fire classes (*with approval)	D* / Li+	A / D / Li+	A / Li+	D / Li+
Suitable for the secondary fire load of the fire class A				
Suitable for lithium ion battery (secondary)				
Suitable for lithium metal battery (primary)				
The extinguisher is easy to use / the agent to apply				
Well applicable also in hard-to-reach places				
Good adhesion also to vertical parts				
Binding of leaking electrolyte				
Retention of toxic fumes				
Protection against delayed re-ignition of battery cells				
Protection against the spreading of the fire	limited	good	limited	limited
Environmental compatibility of the extinguishing agent				
Heat absorbing effect				
Economical use of the agent is also possible				
Easy removal of extinguishant residues				
Safe distance / throw distance	0m	2-3m	5-6m	3-4m
Durability of the agent (* decision of the expert)	up to 25 years*	up to 6 years*	up to 6 years*	up to 25 years*
Extinguishing effect	suppress	cooling down, suppress	cooling down	coverage
Electrical conductivity	1000 V / 1 meter	1000 V / 1 meter	1000 V / 1 meter	1000 V / 1 meter
Extinguishing process	The powder comes with a shower, almost without pressure on the burning material.	The extinguishing agent is going to be finely sprayed on the burning material, which creates an impermeable layer barrier.	Throughout the usage of the agent with a great adhesive feature, a high cooling effect is going to be reached on the burning object. Preventive protection from further spreading.	By overflowing the burning material with the agent, an excellent isolation layer is going to be reached
Mandatory instruction of the stuff about the usage	not required	not required	not required	yes**
Maintenace in accordance with the DIN 14406 part 4	expert	expert	expert	exp. + add.
Article number	13765	14609 / 14610 / 14611	15213 / 15214 / 15215	15132

* decided by the expert at the maintenance

Attention! These extinguishers are special type of extinguishers, they are not to be used for the calculation of the extinguishing units (german domestic law)

Even the special extinguishers are extinguish incipient fires and according to the application related conditions, their performance can vary greatly.

Water extinguishers achieve due to the insufficient cooling effect no comparable extinguishing effect on batteries as the above listed extinguishers.

