



NFPT
NANO FIRE PROTECTION TECHNOLOGY

INTRODUCTION TO OUR COMPANY

- NFPT, Nano Fire Protection Technology is the market leader for next-generation smart fire suppression systems.
- We are committed to providing exceptional service. All of our products comply with the latest industry regulations, so our clients can rest assured their assets will be protected from fire.

TECHNOLOGY



- The polymer microcapsule shells contain a highly effective extinguishing agent.
- Size of microcapsules: 700-1300 micrometers.
- NFPT technology utilizes polymer matrixes filled with microcapsules containing highly volatile extinguishing liquids.
- In the event of overheating, sparking, or flames (sources of ignition), the microcapsules are destroyed and a gaseous extinguisher is released into the atmosphere.
- Generally, the opening should take place at temperatures between 110°C and 150°C.
- There are many advantages to this technology, including its high efficiency, versatility, ease of use, ability to extinguish fires of all classes with the least amount of fire-extinguishing liquid, and complete safety for both people and the environment.



The NFPT company is an inventor, a patent holder, and a manufacturer of BAST firefighting systems.

Our own scientific laboratory has been engaged in research and development in the area of micro-nano-encapsulation of chemical and bioactive compounds for many years.

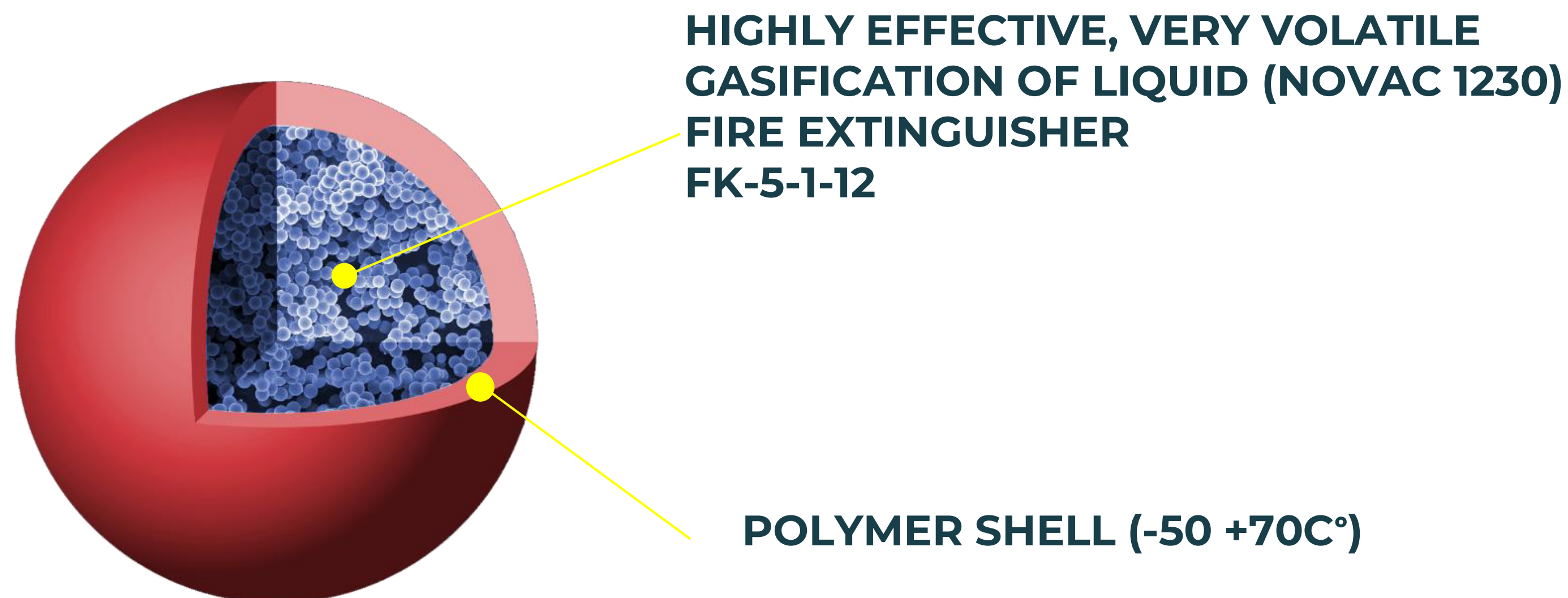
Developing fire safety innovations is the company's priority direction.

Its highly qualified specialists invented and produced special composite polymer materials, such as fire-extinguishing, sorbing, gel-like, heat-resistant elastic foams, etc., which are now used in BAST products.





MICROCAPSULE FILLED WITH EXTINGUISHER



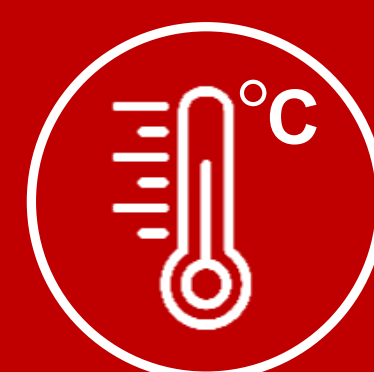
EXTRAORDINARY MERITS OF NFPT CHEMISTRY SCIENTISTS



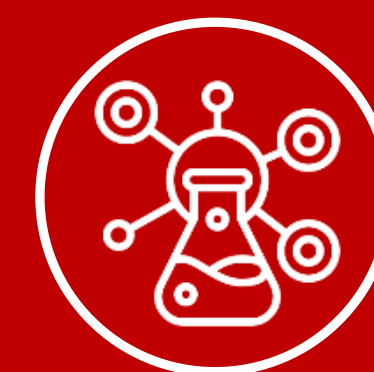
The capsules are filled with
fire extinguishing
composition



Microcapsule shell
durability



Design temperature
Microcapsule triggering



Design and development of a
bonding material that provides
strength, flexibility, and stability
to BAST products..

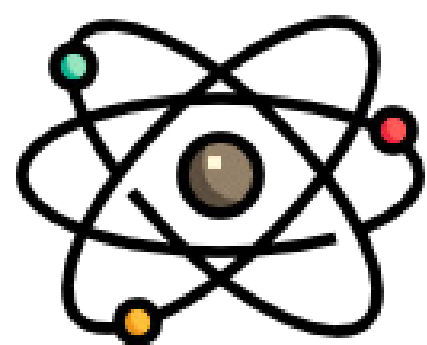


PERFLUORINATED CHEMICAL COMPOUNDS EXPLAINED



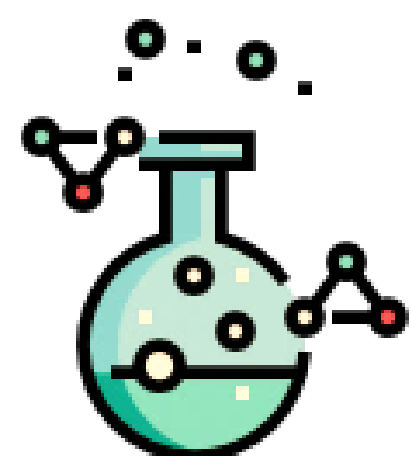
Fluoroketones are synthetic organic substances that are colorless, odorless, 1.6 times heavier than water and do not conduct electricity.

Upon entering the gaseous state, **fluoroketones** actively absorb the thermal energy of the fire. The cooling effect (70% of fire suppression) is complemented by the chemical reaction of flame inhibition (30%). Due to its dielectric properties, the substance evaporates instantly without undergoing chemical reactions.



Fluoroketone is non-toxic.

The release of the gas does not result in a reduction in the amount of oxygen in the atmosphere. Heat absorption reduces human exposure to toxic combustion products..



When exposed to ultraviolet radiation, **fluoroketones** readily degrade. Within five days, they are removed from the environment.

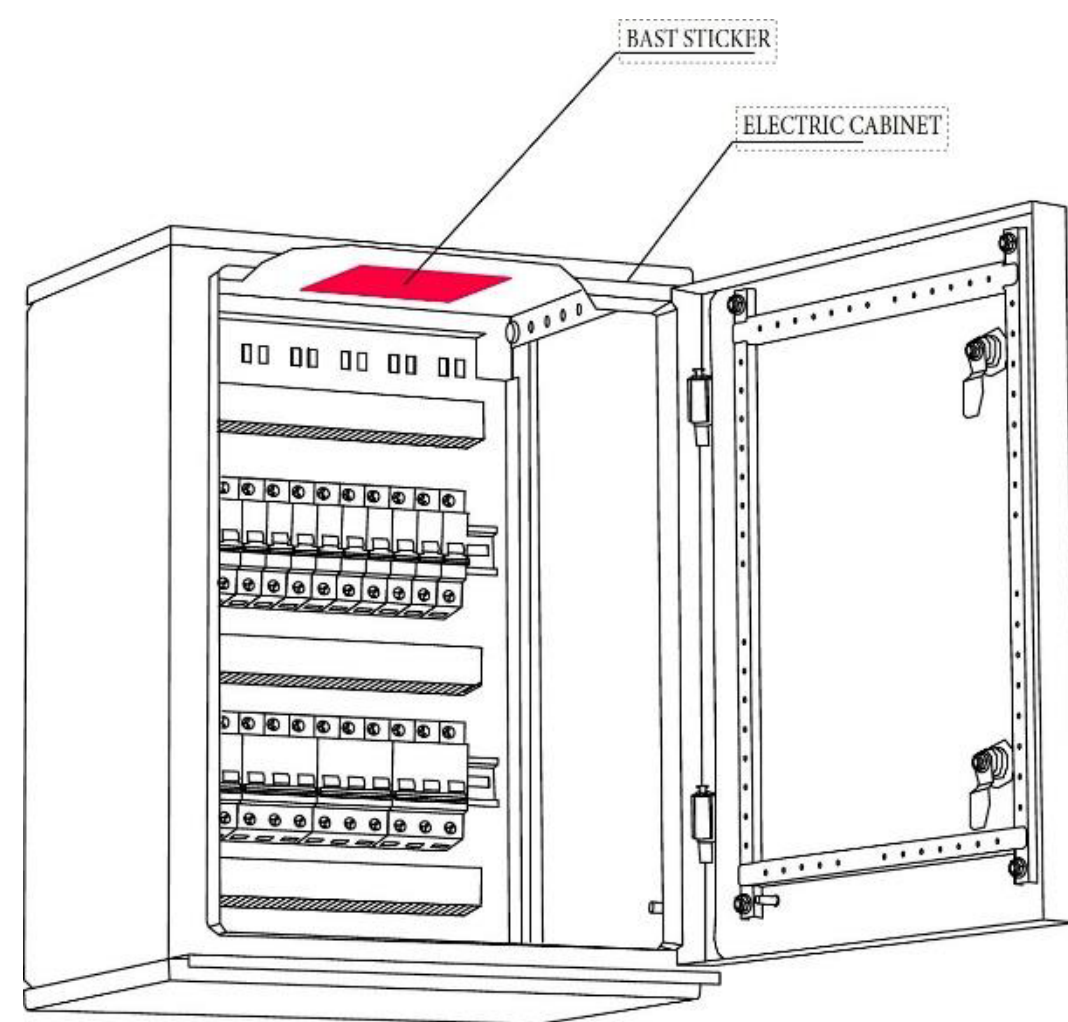
Freons, an old class of agents, persist in the atmosphere for decades or even centuries.

NFPT PRODUCTS

- BAST Stickers
- BAST Cord
- BAST Paint



BAST STICKERS



In the early stages of a fire, **nanotechnology**, based on microencapsulating the extinguishing agent, significantly reduces the risk of a fire.

- Fire suppression is achieved through the use of an inertial automatic link that connects to a firefighting system.
- This type of device prevents fires effectively. In addition to being able to integrate into the fire extinguishing system, it can also operate independently (in case of a power outage, smoke, high humidity, etc.).
- In addition, it preserves the operability of electronic systems and does not damage them. There is no fire extinguishing method that has this property.
- The material is dielectric.



BAST STICKERS

NAME OF THE PRODUCT	SIZE, MM	MAX. PROTECTED VOLUME	RESPONSE TEMPERATURE
BAST Sticker-10	100x25x2	10 litres	120 ± 5 °C
BAST Sticker-20	100x50x2	20 litres	120 ± 5 °C
BAST Sticker-30	100x100x2	30 litres	120 ± 5 °C
BAST Sticker-Socket	20x30x2	0.5 litres	120 ± 5 °C



FIRE CLASIFICACION — **A, B, E**
STICKER SHELF LIFE — 60 MONTHS



BAST CORD

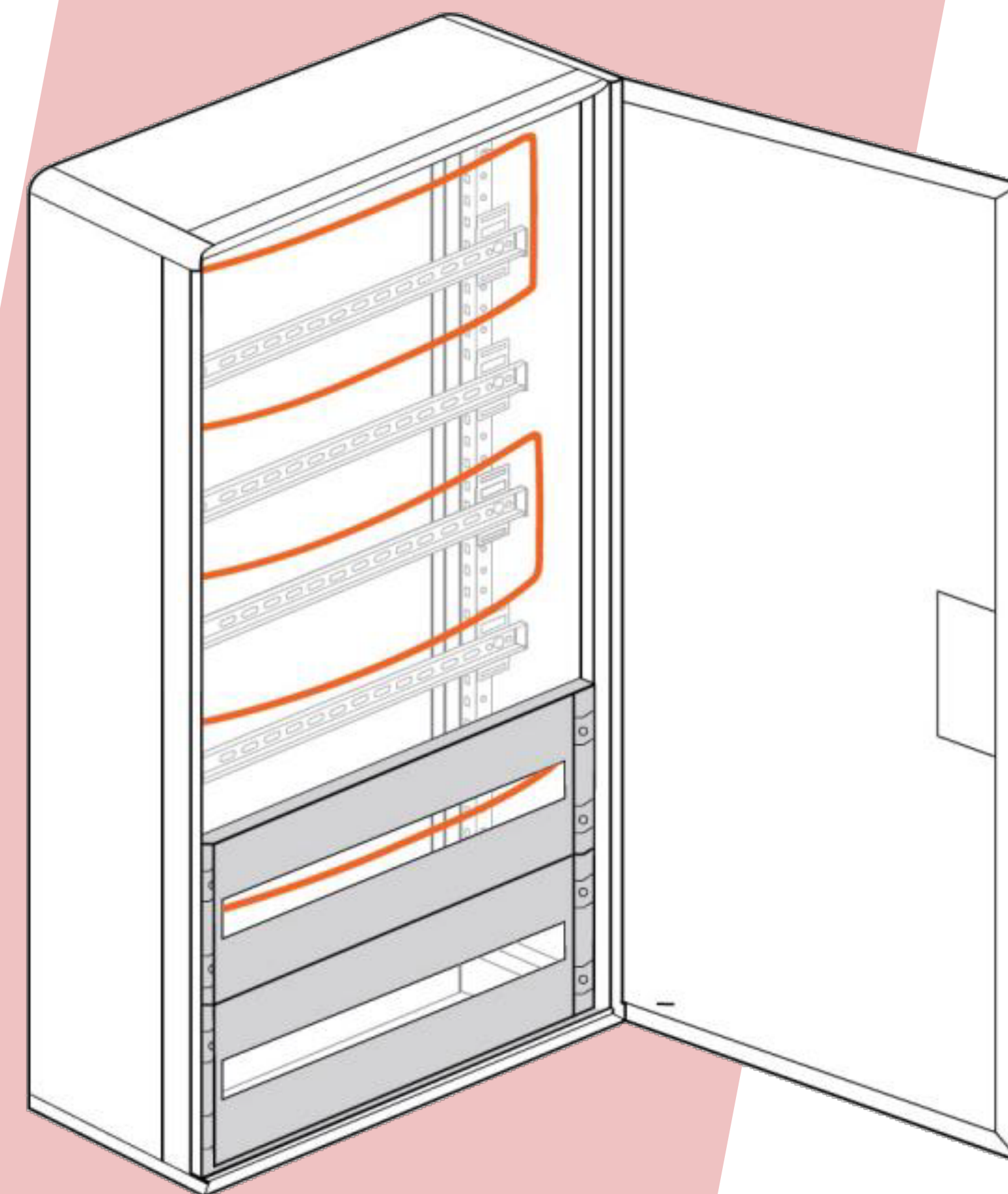
Using a cord filled with microcapsules and granules, this technology provides protection for large objects with a volume up to 2 000 liters based on the production of fire protection plates.

- In this method, fires are extinguished through reactive impulse extinguishing and as close as possible to potential dangers.
- The material maintains the operability of electronic systems, does not damage equipment, is dielectric, and is able to operate in humid, hot, and smokey conditions.
- Despite its autonomy, this tool can be used in conjunction with smart signalling and triggering devices that are compatible with the corresponding software.



BAST CORD APPLICATION

- The BAST cord should be evenly distributed along the frontal plane of the entire protected object by laying it out in a "Snake" pattern from left to right (or right to left) and from top to bottom.
- The first line of BAST cord should be installed no more than 5-10 cm from the top of the protected object.
- Using a 15 to 30 cm pitch, the rest of the turns of the BAST Cord run along the bottom line of the protected object.
- BAST Cord excess length is randomly distributed along the bottom contour of the protected object.
- Using the self-adhesive fasteners included in the delivery set, the BAST cord is attached to the side walls of the protected object.



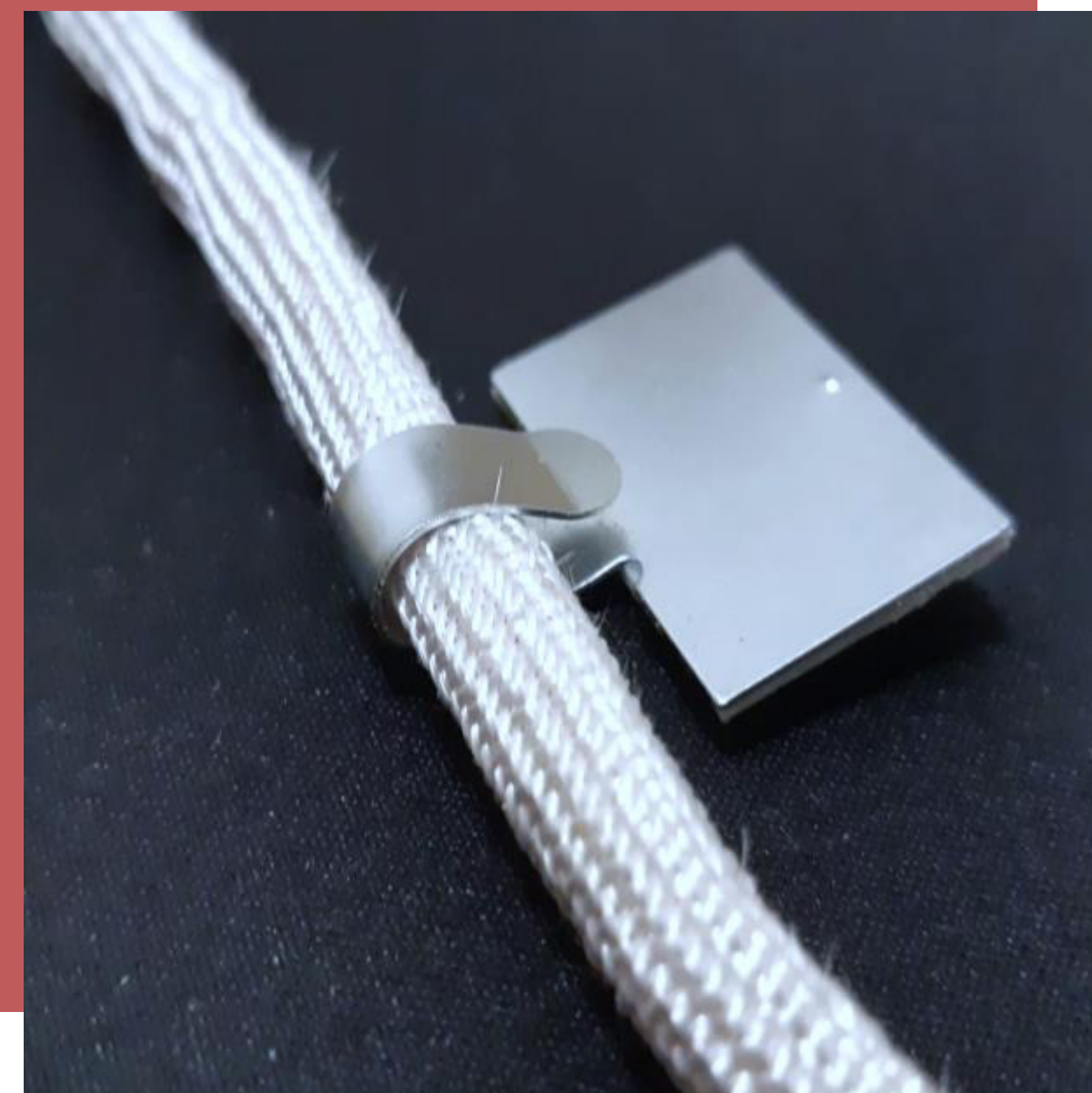


BAST CORD FASTENER

BAST fire cord mounts are made of specially coated steel, ensuring 100% electrical conductivity (dielectric).

In some cases, third-party mounts had a negative effect on the installation, influenced its operation, and in some cases, fell off, violating the system's integrity.

The company has therefore developed its own fastening, which is guaranteed to provide weather and seismic resistance, so the structure remains inside the protected volume reliably.





BAST PAINT

A wide range of surfaces can be painted with microcapsules, including plastic, wood, metal, rubber, and even textiles

Where to use?

- Protection against fire in small closed spaces, such as:
- Control cabinets
- False floors
- Dropped ceilings
- Boat engine compartments
- Electric vehicle battery compartment
- Server rooms
- Storage with explosive or valuable products
- Electronic devices
- Heavy-duty appliances





APPLICATION AREAS OF BAST PRODUCTS

Civil Defence



Construction



Electric Vehicles



Healthcare



Hospitality



Military & Defence



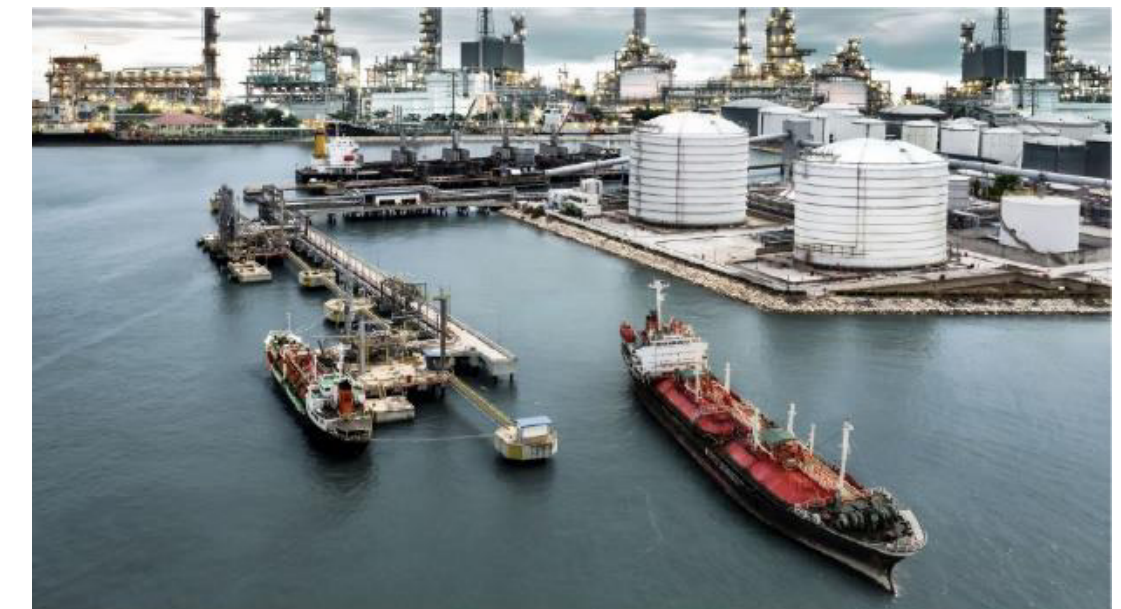
Logistics & Transportation



Telecommunications

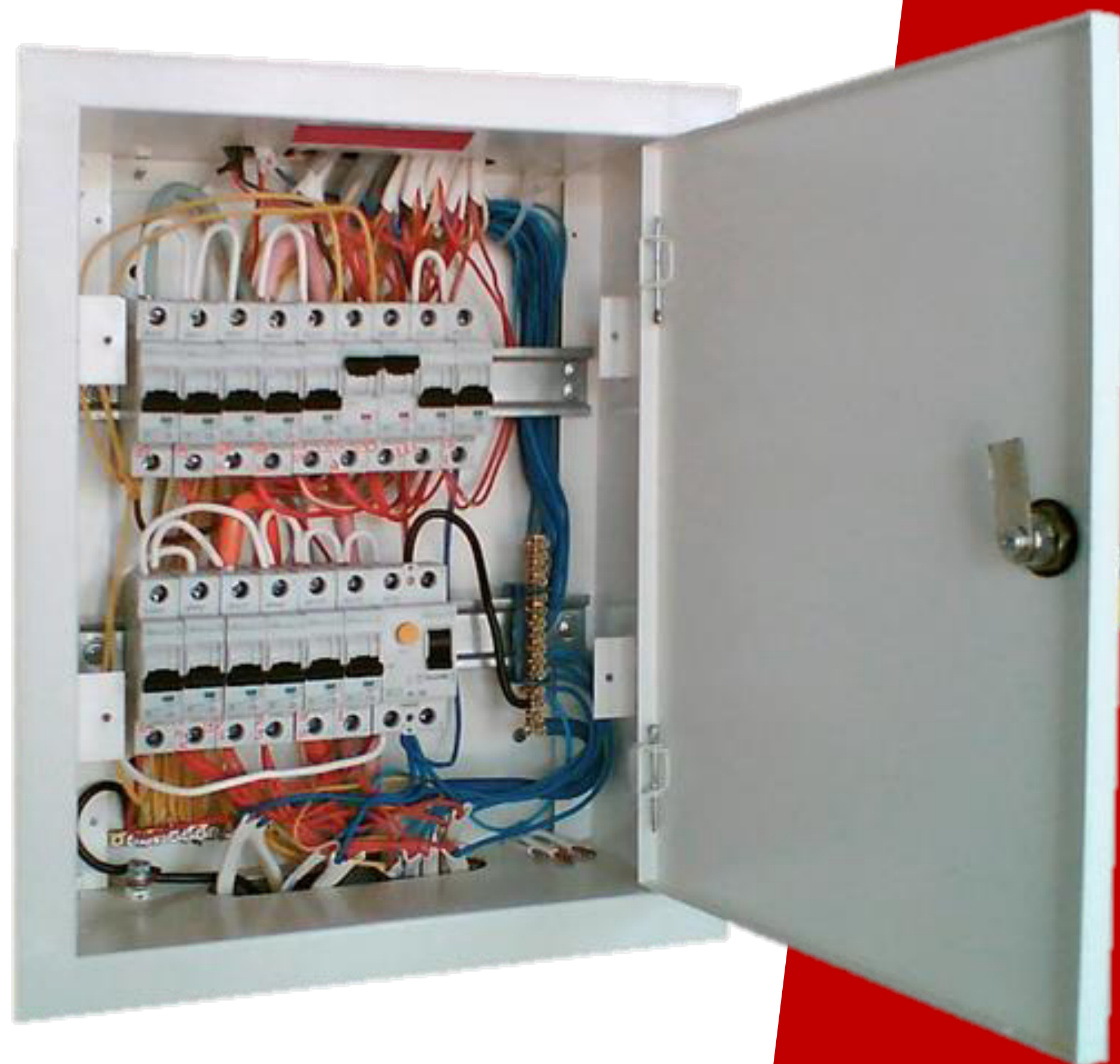


Oil & Gas





ADVANTAGES



- BAST provides a new level of fire safety assurance.
- An extinguishing agent encapsulated in nanotechnology significantly reduces the risk of a fire in its very early stages.
- Installation is easy.
- Any fire-fighting system begins with the autonomous BAST installation, which suppresses the source inertialess.
- There is no need to worry about warning systems, automatic fire extinguishers, emergency power outages, or human factors.
- BAST products enhance the reliability of fire protection by complementing standard extinguishing systems.
- BAST products are waterproof.

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UNITED ARAB EMIRATES
MINISTRY OF INDUSTRY
& ADVANCED TECHNOLOGY



الإمارات العربية المتحدة
وزارة الصناعة
والتكنولوجيا المتقدمة

بيان التمسج | Schedule Of Certification

9	BAST	BAST CORD 500	BAST CORD 500	N/A
10		BAST CORD 750	BAST CORD 750	N/A
11	BAST	BAST CORD 1000	BAST CORD 1000	N/A
12	BAST	BAST CORD 1500	BAST CORD 1500	N/A
13	BAST	BAST CORD 2000	BAST CORD 2000	N/A
14	BAST	BAST MICROCAPSULES	BAST MICROCAPSULES	N/A



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للتأكد من صحة الشهادة يرجى مسح رمز الاستجابة السريعة
أي تغيير في هذه الشهادة ينعكس
في كتمانها







NFPT

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