

'Automatic fire detector and extinguisher system'

TECHNOLOGY

These products are an innovation using "NANO" technology to protect loss of property and life due to fire accidents arising out of electrical short circuits. This technology of fire suppression is developed for local suppression of fire at an early stage, directly in the place. ACTOK technology is the first ever example of microencapsulation technique applied in the field of fire extinguishing.

ACTOK technology is simple for understanding and innovative by essence. A device of any form and size made by this technology can remain for many years in "standby mode" and automatically extinguish fire in a place where it occurs, without letting it develop into a fire. Today various composite materials have been created by ACTOK technology capable of suppressing fire. The structure of such materials includes microcapsules with fire retardant agent - Freon - confined within. When heated to a pre-set temperature shell of capsule bursts discharging Freon. When Freon is in contact with open fire or smouldering surface, Freon binds and displaces oxygen, swiftly cools the place of burning and thus quickly and effectively extinguishes the inflammation.

Microcapsules:

The technology of microencapsulation is well-known and widely used in many industries. Inside of all of the ACTOK based products there are tens of thousands of microcapsules that store fire extinguishing agent and insure fire suppression when the temperature they are designed for is reached. The polymeric shell of microcapsules retains the fire retardant compound in working order for many years and destructs strictly on reaching the set temperature, releasing fire suppression agent and making each individual microcapsule a micro standalone fire suppression device.

Advantages:

Standalone system, no detection, actuation and storage and supply system needed. Prevents fire escaping from the protected / enclosed space.

Non-ozone depleting.

Tested and certified for the use of Class A2, B, C & E type of Fires. No extra space required as it is installed in the equipment itself. No Electrical or Mechanical connections required.

These products are the only fire retardant solution, which can be fitted in the tiniest electrical plug point to any panel board, distribution board, server racks and cable layouts.

This technology as against the traditional methods of firefighting curtails the fire right at the source thereby not allowing it to surge, further it does not allow the fire to happen again in the span of next 15-20 min until the gas remains in the enclosed environment.

Characteristics:

Fire extinguisher, CAS components number: 124-73-2, 471-34-1, 9002-89-5, 112926-00-8

Activation Temperature: 100° - 150°C Ambient/Operating Temperatures: -50° to +80° C Shelf Life: 120 months from the date of issue Protection Class: IP20 and above

Chemical Composition

This gas composed of chemical Freon HFC-227ea 1,1,1,2,3,3,3 Heptafluoropropane: Chemical formula: CF_3CFHCF_3 . The name of ISO 14520, UNE 23570 and FPA2001, HFC-EA (45%) and 21711 (FIC 21711, R 21711, 2-heptafluoroisopropyl Iodide) Formula: CF_3CFICF_3 Chemical name: 2- heptafluoroisopropyl Iodide (35%) considered a clean agent. The extinguishing HFC-227ea acts mainly for physical cooling, removing heat from the flame. This type of extinguisher for its very low volatility and low toxicity in environments with full saturation and chemically less harmful to humans and the environment.

Certifications

ISO 9001: 2011, ISO 9001: 2015, CE CNBOP-PIB (Europe), FTRL India

The voluntary certification system EURASZSTANDART Turkish certificate of conformity

Korean Certificate of Conformity / Certificate of KFI accreditation

Emercom Recommendation

The system of voluntary certification of products "REGISTER POZHTEST"

Russian Regulation Recommendation" Certificates of Conformity

Scientific Technical Centre, "POG-AUDIT, Moscow."



PRODUCTS

ACTOK PYROSTICKER is a miniature self-contained, automatic local fire suppression installation, designed with application of ACTOK technology. Intended for protection against inflammation of electric sockets, junction boxes, power distribution boards (electric cabinets) and other electrical equipment having confined space of 0.02 to 60 dm³ (cubic decimetres). PYROSTICKER is a flexible plate of composite fire suppressing material carried by self-adhesive substrate. Method of mounting gluing horizontally over a potential source of ignition.

PYROSTICKER is designed for use in residential premises, for it can doze extinguishing agent releasing it in strictly limited amount, if necessary (when the operation temperature is reached). Thus, maximal safety for humans is ensured. ACTOK PYROSTICKER product line includes models P, 15, 25, 45, 60.

Actok PyroStickers Capability range



Pyro Stickers ACT 15, ACT 25, ACT 45, ACT 60

ACTOK PYROSTICKERS are efficient for liquidation of fires in power distribution boards, switch- boards, and other small- sized objects with a volume of 0.02 to 60 dm³ (cubic decimetres) and with no less then IP20 degree of protection (protection against solid bodies sized up to 12.5 mm, wind and draughts).

Low voltage equipment, voltage from 50V to 1000V, volume from 15 to 60 dm³):

The digits part of PYROSTICKER index corresponds to protected volume in litres (dm³). Operating temperature 100-120C, ambient temperature from -50 to +80C. Warranty period 10 years.

Pyro Stickers ACT P

ACTOK PYROSTICKER (P) is efficient for liquidation of fires of class A, B, C, and is intended for the protection of electric sockets. It is placed directly in a protected socket (socket box), in a place where short circuit, overheating or spark formation is possible. Does not require servicing. To be used to protect against inflammation of any small-sized electric devices, such as electric sockets, switches, junction boxes, closed elements of lighting fixtures, relay cases, electric motor connection boxes etc. .

Operating temperature 120C, ambient temperature from -50 to +80C. Warranty period 10 years.



Pyro Cord

ACTOK PYROCORD is an innovative self-contained stand-alone fire extinguishing device designed with application of ACTOK technology, having the features of self-activating fire extinguisher, with thermally activated gas discharging fire retardant agent to provide fire protection for electrical equipment confined in local spaces.

This innovative product combines the now widely accepted and well-proven method of fire retardant agent microencapsulation with breakthrough method of gas discharging.

PYROCORD is a new generation of fire suppressing products. The PYROCORD innovative product is a cord of composite material being a mixture of microcapsules with a heating compound. PYROCORD is placed within the protected local space so that it is located over each potential source of inflammation.

Under the effect of fire in any point on PYROCORD an initiation of heating compound occurs with subsequent chemical reaction throughout its length. The reaction is accompanied by heat discharge which results in the bursting of all microcapsules and the discharge of vapours of fire retardant agent, while the concentration of fire retardant agent (FRA) is reached in the local space that is necessary for the termination of inflammation.

To ensure mechanical strength of the product and to retain solid products of reaction the cord has fireproof gas-permeable shield. The shield also bears the functional feature its pitch regulates the propagation velocity of gas discharge front along the product.

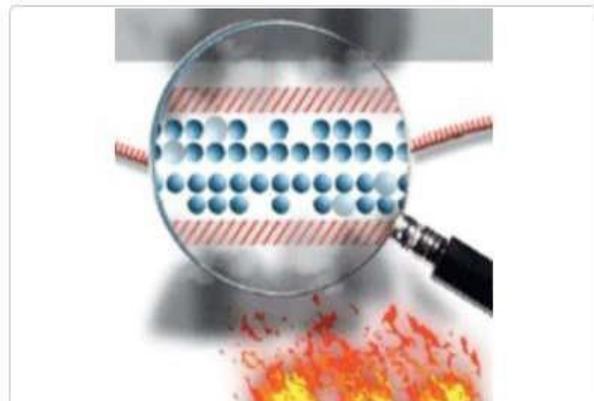
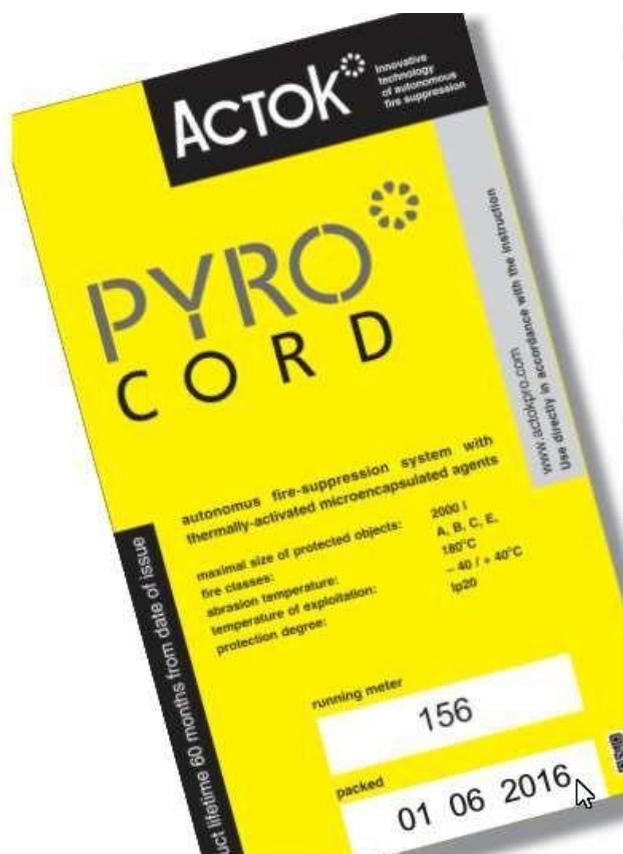
ACTOK PYROCORD Extinguishes inflammation sources at early stages of fire, prevents distribution of fire beyond limits of a protected space.

Excludes repeated ignition in the protected space for up to 30 minutes, thanks to the effect of phlegmatization. Simple and reliable in operation, easily integrates with standard systems of fire alarm and automatic fire suppression. Compact and energy independent, does not require maintenance service.

Does not create high temperatures and aggressive environments in the protected space. Has a wide temperature range of operation.

Does not cause damage to equipment and personnel.

Operating temperature 150C, ambient temperature from -50 to +80C. Warranty period 10 years



Primary Protection Facilities

Oil and gas production facilities, Motor transport, Electric transport, Railway transport, Sea and river transport, Aviation equipment, Armoured vehicles, Housing stock, public buildings and structures, Social security facilities, Warehousing and industrial premises, Cable chutes, power plants, server rooms, Radio and TV equipment, computers, Control towers, Garage premises.

INTENDED USE

Used to extinguish fires of A2, B, C, E classes. Do not use for extinguishing: fires of metals, radioactive materials and smouldering of solid combustible substances.

1. Electrical installations of buildings and structures:
 - Assemblies, cabinets, boards, boxes; lead-in, power supply, lighting, apartment-type, etc.
2. Electrical devices and household appliances and similar:
 - audio- and video devices, radio and TV-sets;
 - personal electronic computers(PCs), server equipment;
 - low-voltage equipment connected to personal computers;
 - powering units, charging devices, voltage stabilizers;
 - devices to maintain and adjustment of microclimate in premises;
 - lighting equipment and sources of light;
 - devices to cook and store food and mechanization of kitchen jobs;
 - devices to process (washing, ironing, drying, cleaning) of linen, clothes and footwear;
 - devices for cleaning and tidying premises;
 - Entertainment equipment.
3. Electrical industrial equipment:
 - devices to distribute electrical power;
 - electrical devices to control electric technical units,
 - all (cabinet, panel, box-type) protected low-voltage complete devices (LVCD);
 - panels, control boards;
 - tele mechanics devices;
 - boards, control panels on rolling stock;
 - automated working places of railway transport divisions;
 - automated systems of operative control of technological processes;
 - electrical part of machines and equipment;
 - process equipment, machines, mechanization of minor operations
4. Local protected places of storage, volume from 60 to 2000 litres:
 - Cabinets for storage, safes, etc.

For Product Enquiries:

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Benart



CE



ISO 9001:2008



Fire Safety



ISO 14001



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