



Bluescope.

Solution Driven Company

Fire RID[®]

Automatic Fire Extinguisher



आपका अपना फायर ब्रिगेड

INDEX

Sr no	Description
1.	Company Profile / introduction
2.	Product Information
3.	Product Advantages
4.	Product Benefits
5.	Product Comparison
6.	Product Warranty
7.	Client List
8.	Gem Approved listing
9.	Product Installation
10.	Recommendation Letter from Fire Department
11.	Bureau of Indian Standard (BIS)
12.	International Certification

Company

Introduction

Bluescope AV Technologies Pvt Ltd, has been established as a MEP (Mechanical, Electrical & Plumbing) Service provider to various Blue-chip Companies, industries and Governments.

Company has completed 9 years of operation in Facility Management, Turnkey project of Fire & Safety Installation and Integrated Building Automation Systems with the strength of more than 550 employees in pan India.

The Company identified a gap in the market and introduced the product. Challenges of conventional fire extinguisher used for immediate fire suppression forced to search modern ways to extinguishing fires one which self-activates to prevent fire from spreading. This is a sort of first aid product in Fire & Safety Industry which could activate itself and would not require any human intervention in the case of a fire unlike conventional extinguishers.

It has proved itself useful in various applications especially unmanned areas and has been experimented under various parameters before being launched in India.

When a Fire Starts: - Everybody knows that fire must be extinguished in its initial phase else it will worsen the situation beyond control. The purpose of FireRID is to prevent and extinguish the fire in the beginning itself. FireRID has chemical composition which is non-toxic, harmless for human, animal and the environment. FireRID not only suppress fire immediately but also saves property and human life.

Value Engineering: -We do not simply make products but each aspect of the product is worked out to the finest detail. Bluescope quality today signifies total trust and commitment, which has led to customer satisfaction.

Value Marketing: -We stand committed to provide the customer with the best when it comes to either fire extinguisher or any other aspect of fire safety. We therefore do not think that we are mere providers of fire extinguishers, but we have taken upon us a task to continuously create awareness in the customer's mind about fire safety and provide education on the subject.

We wish to cater to your requirements and assure you of our best services at all times.

Values

Cares for people

Cares for the community

Cares for the
environment

Cares about performance

Respects Law &
Standards

Values innovation &
knowledge

Fire RID[®]

Automatic

Fire

Extinguisher



"FireRID" is an innovative fire extinguisher that is revolutionary in both the design and the working principles, Certified with EN (European Nation) and CE certified (Conformity of European) Standards.

It comes in the form of a glass cylinder filled with a chemical solution that activates automatically at elevated temperatures in case of fire.

FireRID is a scientifically advanced, automated firefighting solution, highly effective in extinguishing fire.

The content of the solution is non-toxic and eco-friendly chemical filled in a Bohemian glass that automatically activates at elevated temperatures 84°C extinguishing fire in its initial phase. In this way, FireRID saves lives, expensive properties and items from major damages.

"FireRID" has a different set of working principles from conventional extinguisher in that the former can function in an automatic mode, manual throwing and diluting with water. "FireRID" can be called the "three-in-one" innovative extinguisher.

What sets FireRID apart is that it is stylish, simple to install, requires less maintenance and is less space consuming as compared to other conventional fire extinguishers

Technical
Specification
OF

Fire**GRID**[®]

Applicability: - Works on all classes of fire; highly recommended on sensitive equipment such as computers and server.

Available Size: - 580ml

Technical Excellence: -

"FireRID" self-activated fire extinguisher which activates automatically and extinguishes fire when the solution reaches the temperature of 84°C; Non Toxic & Eco-friendly Chemical; Length - 307mm; Diameter - 60mm; Gross Weight - 1025 gram; Net Weight - 800 gram; Volume - 580ml; Temperature stability -20° c to 70°c, Fire extinguisher Coverage Area in automated Mode - 16 cubic meters; Effective Extinguishing Time - 7 to 17 seconds; Applicable on A, B, C, & E Class of Fire; Standards & Declaration of Conformity Fire classification A, B and C, according to EN2:1992 + A1 2004 and EN3- 7:2004 + A1 2007. Declaration of conformity for FireRID fire extinguisher: it is manufactured according to Regulation No. 1272/2008 (CLP). Intertek Certified & MPA Dresden; Warranty - 10 Years & it is also approved as per Bureau of Indian Standard (BIS)



Valued Quality. Delivered.



الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.



ADVANTAGES

OF

FireRID[®]



Advantages of “FireRID”

- High efficiency on class A, B, C and E type fire
- 10 years warranty
- No refilling cost
- Easy to used.
- Can be used in 3 ways. Automatically activation/ Hand Grenade / Dilute in water & enhance firefighting strength.
- Dilute in water mode multiplies its effect
- It prevents re-ignition
- Very small in size & very light in weight even installation is simple.
- Require very small place even to install.
- Enhance aesthetic looks from interior décor perspective.
- Work even in extreme weather conditions (-23° C to + 70°C).
- Does not need to lay down a cable, power supply or water pipe
- Does not require any maintenance and refilling for 10 years.
- Works 24 X 7 and can be used simply in case of panic situation
- Doesn't cause any damage in electrical systems, machines etc.
- Environment-friendly, Non-toxic on humans and other organisms
- The special glass body, breaks into pieces without edges.

BENEFITS

OF

FireGRID[®]

Extra benefit with FireRID fire extinguishers

- 1) **Free replacement during warranty period:** - Free replacement of fire extinguishers if found any manufacturing defect during the warranty period of Ten years, provided there should not be any damage to Fire extinguishers.
- 2) **Saving Refilling Cost:** - No need of refilling every year unlike have to do currently with other brand available in market. So every year your organization saves refilling cost.
- 3) **Maximum Warranty:** - Warranty of Ten years, which is highest in industries, For more details see the warranty card



- 4) **Warranty Card:** - Warranty card along with terms & condition are provided. so that customer is well aware of what they are getting in warranty period
- 5) **Efficiency/Originality:** - since refilling does not require every year efficiency/originality are maintained year on year for the next ten year.
- 6) **Aesthetic Looks:** - High aesthetic value which makes “FireRID” blend with the classiest of interiors and surroundings. This is very important because you can place “FireRID” in prominent positions- constantly reminding you of the available firefighting power, at the time need most.



- 7) **More power to Extinguishing Liquid:** - The extinguishing liquid when mixed with water multiplies its effect. Environment- friendly & has a non-toxic effect on humans and other organisms.

What makes



Different

Then Other

Conventional

Fire

Extinguisher



FireRID Automatic Fire Extinguisher does not require any preparation for use. Its glass ampoule automatically bursts when there is a fire and the fire extinguishing active liquid agent covers the protected area and within seconds it extinguishes the fire.

Participation of operator is completely unnecessary. If required it can also be used as a hand grenade and thrown into the fire from a distance without getting close to the fire itself.

In a case of advanced fire, it is recommended to dilute FireRID Automatic Fire Extinguisher contents in water with ratio of 1:20 (content of one-unit extinguisher in 10-12 litres of water), and then throw the solution in the direction of the roots of fire, which extinguishes the fire.

In this case as compared to other extinguishing mediums there is no collateral damage and the loss and damage is minimal.

Technical comparison between Fire Extinguisher and Fire RID

Sr. No.	Technical specification	Fire Extinguishers	Fire RID
1	Design Look		
2	Operating mode	<p>Only one function i.e. Manual - It means man power need to be present at the time of fire to use that. What if the fire took place at night/ week days/off days/ on holidays.</p>	<p>“Fire RID” operates on three different Modes – Automatic Mode - It will get self-activated if no one is around No need of manpower to be present at the time of fire. Manual throw - If some one are around than no need to wait to get activated automatically. Simply pick it up & throw in the fire Diluting with water - If fire got spread in multiple location & have limited fire extinguisher in that case we can used same fire Rid by diluting it in water. By doing this water fire fighting strength get multiply by 20 times</p>
3	Aesthetical Looks	<p>i) The extinguishers are shabby and poor in appearance, so you end up hiding it somewhere, where it can't be seen. ii) And when you need it, you waste precious time in getting the extinguisher to the site of the fire.</p>	<p>i) Very compact & elegant looks. ii) Can be installed anywhere without hampering decor.</p>
4	Properties	Corrosive & Toxic.	Non – Corrosive & Non – Toxic.

5	Size & Shape	i) Very big & bulky size; Need to install on side wall ii) Height 480MM, Diameter 160MM;	i) Very small & compact size; can be fit anywhere ii) Length - 307mm; Diameter - 60mm;
6	Shelf Life	5 Years	10 Years
7	Weight	Gross Weight 9.4 Kg, Net Weight 6 Kg	Gross Weight - 1025 gram; Net Weight - 800 gram
8	Angle of discharge	30 to 35 degrees.	155 degree. Wide coverage area
9	Thickness of cylinder	2mm; Which makes fire extinguishers comparatively heavy in weight	1MM; Which makes fire extinguishers very light in weight
10	Coverage area	Manually have to move across the fire in order to cover the area	Coverage Area in automated Mode - 16 cubic meters/ 100 sq feet
11	Activation	It's a manual operating by human being, Need to go near the fire after properly braking the safety seal & inspection of pressure gauge	i) In automatic mode: - Since it has to install on above the risk area not more than 2 to 2.5 mtr; will gets activated automatically once the temperature reaches the threshold level
			ii) In Manual throw mode: - Simply throw in the fire
12	Visibility	Since it's a Powder based fire extinguisher while using it powder get spread in area which hindrance the visibility & create problem in fire fighting & evacuation	Visibility are not hindrance as liquid get converted into gases when activated
13	Pressurising agent	Nitrogen gas require to throw the fire fighting agent; which may get discharge if not maintain periodically as per given guidance & norms	Non pressurising fire extinguisher

14	Material Used for cylinder	Mild Steel thick sheet of E. D. D. (extra deep drawn) quality is used for manufacturing the cylinder	High quality made in Germany "Bohemian glass" used for manufacturing the glass cylinder; It has a centuries long history of being internationally recognised for its high quality, craftsmanship, beauty and often innovative designs
15	Welding on cylinder	360° welding used to join the cylinder part. That place sometime becomes the leakage point if welding not done properly	Since it is single piece glass based fire extinguishers solution are already consider while manufacturing it
16	Pressure Gauge	Since 15 bar pressure require inside the fire extinguishers to throw the fire fighting agent outside. Pressure gauge is must to place on fire extinguishers to have accurate pressure readings & thereby know the state of readiness at all the time.	Since there is no in build pressure inside the fire extinguishers; Pressure gauge does not require
17	Service & Maintenance	AMC require in order to check the Fire extinguishers health (safety seals, pressure gauge etc)	Since it is liquid based & no pressure inside the extinguishers hence AMC not required
18	AMC	Since fire extinguishers are filled with 15 bar Pressures inside to throw the fire fighting agent out; periodical maintenance require	Since there is glassed based container & no Pressure inside; Maintenance not require. Hence saving that cost
19	HPT test	As per norms Stored pressure Fire extinguishers have to go throw the HPT test after every three years in order to check the strength of fire extinguishers	Since it is not a stored pressure fire extinguisher; not require to go throw that test. Hence saving that cost
20	Replacement Cost	Maximum warranty comes with 5 years in market. Which need to replace with new one after that so it becomes double the cost after 10 years	No replacement cost till ten years since it comes with ten years warranty. Hence saving that cost

Warranty

- **Bluescope** provides Maximum warranty on its products i.e. of 10 years.
- We also provide warranty card along with terms & conditions.
- We also provide free replacement of fire extinguishers during warranty period if there is any manufacturing defect

List

Of

Prominent

Customer

Standard Chartered



HDFC BANK

We understand your world



बँक ऑफ महाराष्ट्र
Bank of Maharashtra
एक कुटुंब एक बँक

Mahindra
Rise.

Mahindra FINANCE

India Ratings & Research
A Fitch Group Company



TATA CONSULTING ENGINEERS LIMITED

TATA AIA
LIFE INSURANCE



SUN PHARMA



Raymond

STERLING & WILSON



Gem (Government-e-Marketing)

Category listing of Fire RID in Gem portal:

Portable Automatic Fire Extinguisher as per EN/ISO/IEC17050

Automatic Fire Extinguisher

Fire RID

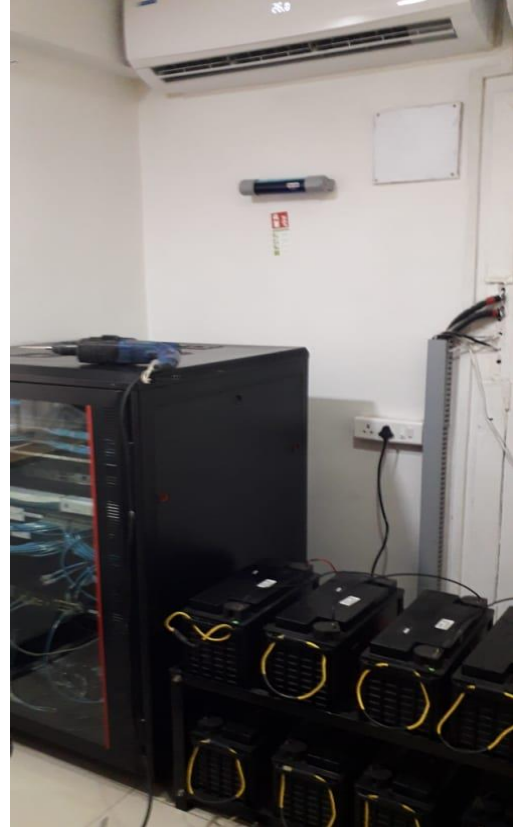
Fire RID Installation in Electrical Room



Automatic Fire Extinguisher

FireRID

Fire RID Installation in Battery & UPS Room



Automatic Fire Extinguisher

Fire RID

Fire RID Installation in Factory Room



Automatic Fire Extinguisher

Fire RID

Fire RID + Installation Kitchen Exhaust Hood



Automatic Fire Extinguisher

FireRID

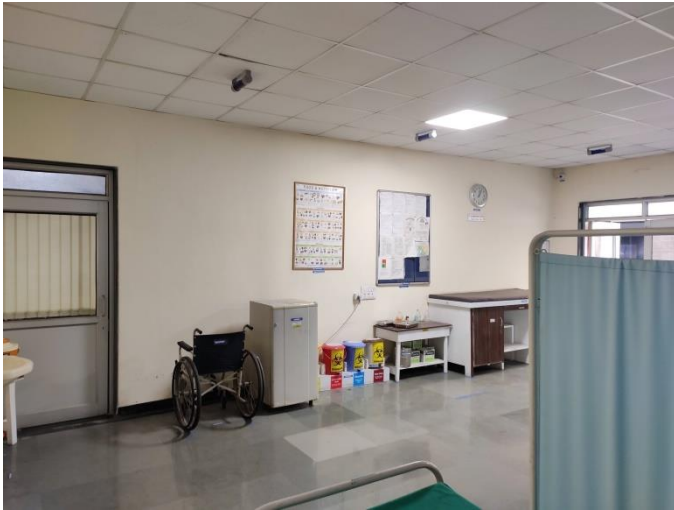
Fire RID Installation With Protected Grills



Automatic Fire Extinguisher

FireRID

Fire RID Installation inside Hospital





Municipal Corporation of Greater Mumbai

Mumbai Fire Brigade

Office of the Chief Fire Officer,
Byculla Command Centre Building,
1st Floor, Bapurao Jagtap Marg,
Byculla, Mumbai - 400 008.

Phone : 022-2300 1393/94/95
Fax : 022-2300 1392

No. : FB/S/OD/221

Date : 28/7/16

To,
Bluescope AV Technologies Pvt Ltd,
A-58, Ajay Mittal Industrial Estate,
Marol, Andheri (East),
Mumbai 400 059.

Sub: Demonstration of "Bluescope" firefighting extinguisher.

Sir,

M/s Bluescope AV Technologies Pvt Ltd has conducted live demonstration of "Bluescope" fire extinguisher on 25.07.2016.

The product was demonstrated in three applications and tests conducted on fire is found to be effective for immediate fire suppression.

The "Bluescope" fire extinguisher is easy is to use and effective for fire suppression / extinguishing.


(P. S. Ratiangdale)
Chief Fire Officer

GOVERNMENT OF MAHARASHTRA

No.MFS-2018/30/1457

Tel: 26677555

Fax:26677666

Email : supdt@mahafireservice.gov.in

Website: www.mahafireservice.gov.in

Directorate of Maharashtra Fire Services

Maharashtra Fire Service Academy,

Vidyanagari, Hans Bhugra Marg,

Santacruz-East, Mumbai-400 098.

Date : 27th September, 2018.

To,

M/s.Bluescope AV Technologies Pvt Ltd,

A-58, Ajay Mittal Industrial Estate,

Marol, Andheri (East)

Mumbai – 400 059.

Subject:-Demonstration of Automatic Portable Fire Extinguisher

In reference to live demonstration of Automatic Portable Fire Extinguisher conducted M/s. Bluescope AV Technologies Pvt Ltd on 26th September 2018 at Directorate, Maharashtra Fire Services, Vidyanagari, Hans Bhugra Marg, Santacruz-East, Mumbai-400098.

Automatic Portable Fire Extinguisher was demonstrated in three ways (a) automatic burst (b) thrown into fire and (c) diluted into water and tests conducted on fire is found effective for immediate fire suppression / extinguishing.

The Automatic Portable Fire Extinguisher is easy to use and effective for immediate fire suppression/extinguishing.




(Dr.P. S. Rahangdale)
Director
Maharashtra Fire Brigade



AHMEDABAD MUNICIPAL CORPORATION

FIRE & EMERGENCY SERVICE

DANAPITH FIRE STATION, (H. Q.) AHMEDABAD - 380 001

PH. : (079) 22148466 / 67 / 68, 32981178, 32981500 FAX : (079) 22148598.

Dt.05/07/2019

To whomsoever it may concern

In reference to the presentation & Demonstration of Portable Automatic Fire Extinguisher Fire RID and Fire RID Plus conducted by M/S Bluescope AV Technologies Pvt Ltd. Mumbai, on 5th July 2019 at Chief Fire Officer, Jamalpur Fire Station, Jamalpur Char Rasta, Ahmedabad- 380022, Gujarat.

We suggest & recommend the use of "Fire RID Portable Automatic Fire Extinguisher"(three in one) as a portable fire extinguisher, which can be used in three ways as (a) Automated (b) Hand grenade and (c) Diluted with water.

The Fire RID products Portable Automatic Fire Extinguisher is easy to use and effective for immediate extinguishing and suppression of fire.



(M.F.Dastoor)
Chief Fire Officer

Office of the Chief Fire Officer, Lucknow.
Letter No:-CFO/Lucknow/Demo-19

Date: 24/01/2020

To,

Bluescope AV Technologies Pvt Ltd.
A-58, Ajay Mittal Industrial Estate,
Bldg. No. 1, Andheri Kurla Road,
Marol, Andheri East,
Mumbai-400059,
Maharashtra, India.

Subject:- Demonstration of Bluescope "Fire RID" Automatic Fire Extinguisher & Liquid.

Sir,

M/s Bluescope AV Technologies Pvt Ltd has conducted live demonstration of Bluescope "Fire RID" Automatic Fire Extinguisher on 07-06-2019 at 1090 Chauraha Lucknow and Fire Station Hazratganj Lucknow.

The product was demonstrated in three applications and tests conducted on fire is found to be effective for immediate fire suppression.

The "Fire RID" automatic fire extinguisher is easy to use and seems to be an effective tool for first aid fire fighting/ extinguishing.


(Vijay Kumar Singh)
Chief Fire Officer
मुख्य अग्नि निवारण अधिकारी
Lucknow
लखनऊ



Government of Goa
Directorate of Fire & Emergency Services
St. Inez, Panaji,
Goa – 403 001 – India



File No: DFES/PRT/S/2019-20/2917


Date: 17/12/2019

M/s Bluescope A.V. Technologies Pvt. Ltd, Mumbai demonstrated the Fire RID Automatic portable Fire extinguisher at Directorate of Fire & Emergency Services, St.Inez, Panaji Goa on 02/12/2019. The said extinguisher can be used as Automated Burst, Throw away in Fire and Diluted in water.

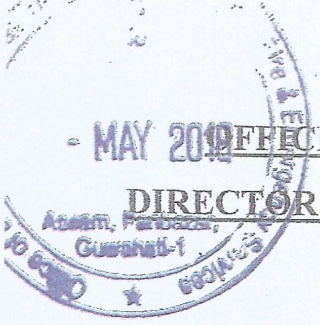
The Fire RID Automatic portable Fire extinguisher is easy to use and effective for immediate extinguishing and suppression of Fire.

This letter is issued at the request of M/s BlueScope A.V. Technologies Pvt. Ltd, Mumbai. Vide email, dated 02/12/2019.




(AJIT K.KAMAT)
ASST. DIVISIONAL OFFICER (Offg.)
NORTH ZONE

To,
M/s BlueScope AV Technologies Pvt Ltd,
A-58, Ajay Mittal Industrial Estate,
Marol, Andheri(East),
Mumbai-400059.



**OFFICE OF THE DIRECTOR GENERAL OF POLICE CUM-
DIRECTOR FIRE & EMERGENCY SERVICES, ASSAM, GUWAHATI.**

10

Bluescope AV Technologies Pvt Ltd

A 58, Ajay Mittal Industrial Estate

Marol, Andheri (E)

Mumbai- 400059

Sub: Demonstration of Bluescope Automated Fire Fighting Extinguisher

Sir,

M/S Bluescope AV Technologies Pvt Ltd has conducted live demonstration of Bluescope Automated Fire Fighting Extinguisher on 16th May 2018 at R.T.C. Sila, North Guwahati, vide our Memo No-F&ES/FPW/ Demonstration /367/ 18 Dated Guwahati the 10.05.2018.

The product was demonstrated in three applications and tests conducted in fire is found to be satisfied and effective for immediate fire suppression.

The Bluescope Automated Fire Extinguisher is easy to use and effective for fire suppression / extinguishing.

21/05/18
(B.R. DAS)
Deputy Director (Tech.)
Fire & Emergency Services, Assam
Guwahati-1

Deputy Director (Tech),
Fire & Emergency Services,

ASSAM. Guwahati



Office of the Chief Fire Officer
Pune Municipal Corporation
Central Fire Station,
Mahatma Phule Peth,
Nr. New Timber Market, Pune 411042.
Tel : 020-26451707, Fax : 020-26450601.
Email.: pmcfireoffice@punecorporation.org
Outward No : FB/ 967

DT: 31/5/18

To ,
Bluescope AV Technologies Pvt Ltd.
A-58, Ajay Mittal Industrial Estate,
Bldg. No 1, Andheri Kurla Road,
Marol ,Andheri East,
Mumbai-400 059
Maharashtra, India.

Subject :- Demonstration of Bluescope "Fire RID" Automatic Fire Extinguisher & Liquied.

Sir,

M/s. Bluescope AV Technologies Pvt Ltd has conducted live demonstration of Bluescope "Fire RID" Automatic Fire Extinguisher on 25.05.2018.

The product was demonstrated in three applications and tests conducted on fire is found to be effective for immediate fire suppression.

The "Fire RID" automatic fire extinguisher is easy to use and effective for fire suppression/extinguishing.


(Prashant D. Ranpise)
Chief Fire Officer
Pune Municipal Corporation



ठाणे महानगरपालिका, ठाणे.

मुख्य अग्निशमन अधिकारी यांचे कार्यालय OFFICE OF THE CHIEF FIRE OFFICER

दुरध्वनी : २५४४०७८९८
२५४४०७८९९
फॅक्स नं. २५४४०७९७

पांचपाखाडी अग्निशमन केंद्र, नितीन कंपनीजवळ, मुंबई-नाशिक महामार्ग, ठाणे - ४००६०२
Panchpakhadi Fire Station, Near Nitin Company, Off. Mumbai Nashik Highway, Thane - 400602

संदर्भ क्रमांक : ठामपा/मुअअ/मु-
Ref/T.M.C./CFO/M- 33

दिनांक : / /२०
Date : 17/11/2016

To,
M/s. Bluescope AV Technologies Pvt. Ltd.
A-58, Ajay Mittal Industries,
Marol, Andheri (East)
Mumbai – 400 059.

Subject : Demonstration of “Bluescope” Fire Fighting Extinguisher

Sir,

M/s. Bluescope AV Technologies Pvt. Ltd., has conducted live demonstration of “Bluescope” Fire Fighting Extinguisher on 15/11/2016

The product was demonstrated on fire is found to be effective for immediate fire suppression.

“Bluescope” Fire Fighting Extinguisher is easy to use and effective for fire suppression / extinguishing.



(S.A. Kale)
(S.A. Kale)
Chief Fire Officer



DECLARATION OF CONFORMITY¹

According EN ISO/IEC 17050-1:2010

No: 201407/1.1

1. Manufacturer: **Flamark d.o.o.**
2. Address: **Ante Topića Mimare 40, 10090 Zagreb, Croatia (EU)**
3. Product: **Fire extinguish liquid MABO/M580 and Automatic fire extinguisher MABO/M581^{2,3,4}**

Declaration

Fire extinguish liquid under the name MABO, M580 and Automatic fire extinguisher under the name MABO, M581 is manufactured by Flamark d.o.o. Zagreb, Croatia and is approved for application in automatic fire extinguisher or could be used in other forms of application. These products are in accordance with conformity of bellow mentioned standards, EU Directives, documents issued by manufacturer and carries the CE marking:

- Classification , A,B, and C, according EN2:1992 + A1 2004 and EN3-7:2004 + A1 2007
- Regulation EC 1272/2008 amending and repealing Directives 67/548/EEC and 1999/45/EC
- Safety Data Sheet according to Regulation (EC) No. 453/2010
- Quality Certificate issued by manufacturer/ M580/M581
- Product Data Sheet issued by manufacturer / M580/M581
- Requirements of good manufacturer's practice, GMP

4. Reference:

- ¹ Declaration of conformity EN ISO/IEC 17050-1:2004:
Supplier`s declaration of conformity – Part 1: General requirement
- ² Regulation 1272/2008/EC
- ³ Class A, B, i C, according EN 2: 1992 + A1 2004
- ⁴ Class A, B, i C, according EN 3-7:2004+A1 2007
- ⁵ Test report, No. 05203 209/2007, Institute of Public Health,
Division of Environmental and Occupational Health, Zagreb, Croatia
- ⁶ Product Environmental Impact certification, Reference No: 1404171,
Intertek , Accord. EC/1907/2006- REACH

7. Date of issue: 17/07/2018

8. Authorized person:



Oliver Zorić

FLAMARK d.o.o.
ZAGREB

This product is manufactured in EU.



CERTIFICATE



**Management system as per
EN ISO 9001:2015, EN ISO 14001:2015, ISO 45001:2018**

In accordance with TÜV AUSTRIA CERT procedures, it is hereby certified that



**FLAMARK Ltd.
Ante Topića Mimare 40
10090 Zagreb
Croatia**

applies a management system in line with the above standard for the following scope

development, production and sales of special firefighting equipment and fire protection fluid

Certificate Registration No. 20100203009991
20104203009992
20116203009993

Valid until 2023-10-18
Initial certification: 2017-10-19

Certification Body
at TÜV AUSTRIA CERT GMBH

Vienna, 2020-12-30

This certification was conducted in accordance with TÜV AUSTRIA CERT auditing and certification procedures and is subject to regular surveillance audits.

TÜV AUSTRIA CERT GMBH Deutschstraße 10 A-1230 Wien www.tuv.at



Online Verification



www.tuv.at/certcheck

ZERTIFIKAT | CERTIFICATE | CERTIFICAT | CERTIFICADO | СЕРТИФИКАТ | شهادة | 證書 | 인증서

Quality and Performance Certificate

Qualität und Eigenschaften**Quality and Performance**

Bescheinigungs-Nr. (Certificate No.): 17FUS0257-03

Das genannte Produkt entspricht den aufgeführten einschlägigen Bestimmungen.

The mentioned product complies with the mentioned relevant specific standards.

Bescheinigungsinhaber (Certificate Holder):

FLAMARK D.o.o, Ante Topica Mimare 40, HR 10090 Zagreb, Croatia

Markenname (Brandname)

MAB, MABO

Fertigungsstätte (Manufacturing Site)

FLAMARK D.o.o., Malomlacka 7, HR 10020, Mala Mlaka, Croatia

Produkt (Product)

MAB: Throwing fire extinguisher liquid, extinguishing medium (readymade solution)

MABO: Automatic fire extinguisher liquid, extinguishing medium (readymade solution)

Typbezeichnung (Type)

MAB: M501; MABO: M581

Beschreibung (Description)

MAB: Fire extinguishing hand grenate, Rating 21A 113B, Fire classes A, B, C

MABO: Automatic fire extinguisher, Rating 21A 144B, Fire classes A, B, C

Intertek Deutschland testifies and certifies, that the products specified above had been subjected to a laboratory fire performance testing at the facilities of MPA Dresden GmbH, a testing, inspection, and certification provider accredited for fire testing by the German accreditation body DAkkS (certificate number D-PL-17819-01-00)

Prüfbericht-Nr. (Test Report No.)

MAB: MPA Dresden report 20150763; MABO: MPA Dresden report 20150761

Geprüft nach (Tested according to)

EN 3-7:2004 + A1:2007 and EN 1568

Gültig bis (valid until)

February 23, 2022

Erstellt am (Issued on)

February 24, 2017



Intertek Consumer Goods GmbH

Würzburger Str. 152

90766 Fürth Germany

Tel.: +49 91 74075 0

Fax: +49 91 74075 30

82743

Intertek Deutschland GmbH
E. Klöber Certifier (Germany)

Dem Zertifikat liegen die Allgemeinen Geschäftsbedingungen der Intertek Deutschland GmbH zu Grunde. Bitte beachten Sie die umseitigen Hinweise.
The General Business Conditions of Intertek Deutschland GmbH is an integral part of this certificate. Please also refer to the information overleaf.

Intertek Deutschland GmbH, Stangenstraße 1, 70771 Leinfelden-Echterdingen

Sitz Leinfelden-Echterdingen, Registergericht Stuttgart, HRB Nr. 225262, Geschäftsführer: Michael Jungnitsch
Tel.: +49 711 27311-0, Fax: +49 711 27311-559, E-Mail: gs@intertek.com, web: www.intertek.de/directory




Intertek Appendix

Reference No SE-GL-1813645R1

<i>Type designation</i>	<p>MABO automatic fire extinguisher (Liquid, 580ml) FLAMAUTO automatic fire extinguisher (Liquid, 580ml) MAB fire extinguisher grenade (Liquid, 500ml) MAR 2 forest fire extinguisher (Liquid, 1000ml) MAR 1 liquid for fire extinguisher (Liquid, 1000ml) Fire Delete (Liquid, 400ml)</p>
<i>Product description</i>	Liquids for fire extinguishing.
<i>Evaluated item</i>	<p><i>Substances of Very High Concern (SVHC)</i> <i>on Candidate List: 1000 ppm (0.1%)</i></p> <ul style="list-style-type: none"> • <i>Substances of Very High Concern (SVHC) according to requirements in Annex XIV</i> • <i>Restricted substances according requirements in Annex XVII</i>
<i>Report reference no.</i>	<p>TON01042014.1:2015-08-20 TON01042014.2:2016-11-24 180705FL: 2018-07-05 210215BAFL: 2021-03-09</p>

Expiry date 22 March 2022

Certification Body Intertek Semko AB, Product Certification *Place* Leinfelden-Echterdingen

Signed


 Roland Heine
 Date 23 March 2021

This Certificate is for the exclusive use of Intertek's Client and is provided pursuant to the Certification agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this certificate. Only the Client is authorized to permit copying or distribution of this certificate and then only in its entirety. Use of Intertek's Certification mark is restricted to the conditions laid out in the agreement. Any further use of the Intertek name for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. Initial Factory Assessments and Follow up Services are for the purpose of assuring appropriate usage of the Certification mark in accordance with the agreement, they are not for the purposes of production quality control and do not relieve the Client of their obligations in this respect.

Certificate



Intertek
Intertek

Product Environmental Impact Certification

TYPE 1 Certificate

Reference No. SE-GL-1813645R1

FLAMARK D.O.O.

Type designation

MABO automatic fire extinguisher (Liquid, 580ml)
FLAMAUTO automatic fire extinguisher (Liquid, 580ml)
MAB fire extinguisher grenade (Liquid, 500ml)
MAR 2 forest fire extinguisher (Liquid, 1000ml)
MAR 1 liquid for fire extinguisher (Liquid, 1000ml)
Fire Delete (Liquid, 400ml)□

Certificate holder

Flamark d.o.o.
A.T. Mimare 40
HR 10090 Zagreb, Croatia

Certified according to

Complies with EU Health and Environmental regulations for Restricted Substances, REACH Regulation (EC) No1907/2006, containing no more than the Maximum Concentration Value (MCV) for the following substances:

- Substances of Very High Concern (SVHC) on Candidate List: 1000 ppm (0.1%)
- Substances of Very High Concern (SVHC) according to requirements in Annex XIV
- Restricted substances according requirements in Annex XVII

Additional information in Appendix.

Certification Body

Intertek Semko AB, Product Certification

Place

Leinfelden-
Echterdingen

Signed

Date

23 March 2021

Roland Heine

Page 1 of 2

CERTIFICATE OF CONFORMITY – WATER BASED FIRE EXTINGUISHING MEDIA

Certificate of conformity reference number: **KB 243/15**

Test specification: Test procedure LM 01-01, test of water based fire extinguishing media, Nov. 29, 2011 except for clause 4.11 – package and marking, see the note below

Test report no.: 20150761

Requested by: Flamark d.o.o., Ante Topića Mimare 40, 10090 Zabgreb, CROATIA

Manufacturer: Flamark d.o.o., Ante Topića Mimare 40, 10090 Zabgreb, CROATIA

Product name: MABO

Type of fire extinguishing medium: Liquid fire extinguishing medium (readymade solution)

Test fire performance: Proof with portable EN 3 fire extinguishers:
21 A and 144 B according to EN 3-7 with 6 litres fire extinguishing medium

Freezing point: - 11,3°C

Notes:

1. The fire extinguishing medium is to use undiluted.
2. The information according to clause 4.11 of LM 01-01 for marking shall be stated on the packing or on the storage container.

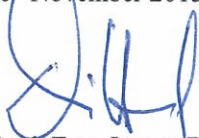
Conformity to the above mentioned test specification is attested. All applicable requirements have been met.

This certificate of conformity is valid solely for fire extinguishing media which correspond to the submitted test samples and to the confirmed documents.

Certificates of conformity of fire extinguishers are solely valid in conjunction with the fire extinguishing medium the type test of the fire extinguisher has been done with.

This certificate of conformity does not include surveillance.

16th November 2015



Grad. Eng. Jürgen Dittrich
Laboratory Manager





POTVRDA O ODOBRENJU PROIZVOĐAČA
CERTIFICATE OF APPROVAL OF THE MANUFACTURER

Br / No 01-012719/019270

Potvrđuje se da je ovaj proizvođač, u skladu s Pravilima za klasifikaciju brodova, Dio 1. – Opći propisi, Odjeljak 4. – Odobrenje proizvođača i uslužnih tvrtki, odobren za proizvodnju proizvoda koji se ugrađuju na brodove i postrojenja pod nadzorom Hrvatskog registra brodova.

This is to certify that this manufacturer, on the basis of the Rules for the classification of ships, Part 1 – General requirements, Chapter 4 – Approval of manufacturers and service suppliers, is approved for manufacture of products for use on board ships and installations under supervision of the Croatian Register of Shipping.

PROIZVOĐAČ:
MANUFACTURER:

FLAMARK d.o.o.
Ante Topića Mimare 40
10090 ZAGREB
HRVATSKA - CROATIA

PODRUČJE ODOBRENJA:
FIELD OF APPROVAL:

Proizvodnja automatskih naprava za gašenje požara raspršenom tekućinom.

Manufacture of automatic spraying liquid fire extinguisher.

ODOBRENJE VRIJEDI DO: 2022-03-25
APPROVAL IS VALID UNTIL:

UZ UVJETE NAVEDENE NA POLEĐINI
SUBJECT TO CONDITION OVERLEAF

Mjesto i datum Split, 2018-04-23
Place and date

M.P.
(Seal)

.....
(Potpis – Signature)
Marinko Popović, dipl.ing.

Proizvodnja je smještena na adresi:

Manufacture address is:

Malomlačka ulica 7
10020 Mala Mlaka, Grad ZAGREB
HRVATSKA - CROATIA

Pojedini tipovi proizvoda moraju biti tipno odobreni od Hrvatskog registra brodova.

Particular products are to be type approved by the Croatian Register of Shipping.

Hrvatski registar brodova izdaje posebnu potvrdu o nadzoru i ispitivanju za svaku pojedinu proizvedenu količinu.

Croatian Register of Shipping shall issue particular certificate on supervision and testing for each manufactured quantity.

Proizvođač se uvrštava u Popis odobrenih proizvođača, i odobren je sve dotle dok se pridržava odredaba Pravila za klasifikaciju brodova, Dio 1. – Opći propisi, Odjeljak 4. – Odobrenje proizvođača i uslužnih tvrtki.

The manufacturer is enlisted in the List of approved manufacturers and is approved until the provisions of the Rules for the classification of ships, Part 1 – General requirements, Chapter 4 – Approval of manufacturers and service suppliers are followed.



الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.

شهادة طراز Model Certificate

رقم الشهادة: 201900000423 Certificate Number:

فُنحت هذه الشهادة بعد تقييم نتائج اختبار من المنتج فقط والمقدمة من قبل الشركة ولا تعتبر شهادة مطابقة سواءً لإرسالية أو لدفعة إنتاج
This certificate is granted after evaluating the test results (presented by the company) of the product only. This certificate is not considered as conformity certificate for shipment or production batch

تشهد الهيئة السعودية للمواصفات والمقاييس والجودة بأنه تم منح شهادة طراز حسب البيانات التالية:

The Saudi Standards, Metrology and Quality Organization (SASO) certifies that the model certificate is granted according to the following information

Company Name:	FLAMARK D.O.O	اسم الشركة المصنعة:	
Technical Requirements: Standard References:	BS EN 3-7:2004+A1:2007 & SASO 125/1999	المتطلبات الفنية/ المراجع القياسية:	
The Issuing Body of the Report:	MPA	جهة إصدار التقرير:	
24/06/2015	تاريخ التقرير: Report Date	201507763	رقم التقرير: Report No.
Imported compny:	موسسة اصضاء التكنولوجيا التجريه	الشركة الطالبة للشهادة:	
Product Name:	بيانات المنتج Product Information MABO, MAB, FLAMAUTO, MAR 1, MAR 2, FIRE DELETE -	اسم المنتج:	
Trade Name:	FLAMARK	الاسم التجاري:	
MA581; FA581; M501; M101; M201; FD301; FD501; FD601; FD750	الطراز: Type	FLAMARK D.O.O	العلامة التجارية: Trade Mark
22/08/2020	تاريخ الانتهاء: Expiry Date	22/08/2019	تاريخ الشهادة: Issue Date

لا تستعمل هذه الشهادة إلا مع هذا المنتج فقط دون أدنى مسؤولية على الهيئة في ذلك.

This certificate is used only for this product without any responsibility on the side of SASO towards others rights.

نائب محافظ الهيئة للمطابقة والجودة
Deputy Governor of Conformity and Quality Affairs

المهندس / سعود راشد العبدك
En. Saud R. AlAskar



Arabic → English



Valid for two years from date



Product certification

Hand Fire Extinguisher Used In Country Of Manufacture, Croatia Hand Fire Extinguisher Used In

Name: MAP: Indoor & Semi-enclosed

M501 Product

Standards Report 0725/409 BS In accordance with

Company Name Foundation Echoes Technology Recipe

the standards described above, based on the letter of the Saudi Standards, Metrology and Quality Organization No. 14/14/1440/11/11, the Civil Defense. There is no objection to using this product registered in a laboratory (Intertek) and bearing its mark, in accordance with the instructions of the manufacturer, and for the purpose for which it was manufactured, within the Kingdom and for a period of two years from the date of return.

Assistant Director General of Civil Defense

Safety Affairs

Abdul Rahman bin Saad Hussein

High/



*Any abrasion or modification cancels this approval

Director General of Systems and Licensing

Saeed bin Dhafer Al-Qami

Colonel

Scanned with CamScanner



Witness test report BFS/PX/1148 – 2006.10.15

Object: Witness testing of the fire extinguishing agents of Flamark

Extinguishing agents: - **Mabo** (automatic fire extinguisher), content 570 ml.
- **Mab** (grenade fire extinguisher), content 470 ml.
- **Mixture of 9 l water and the contents of a 'MAB-grenade' (470 ml)** in a basin.

Date of the tests: 2006.09.27

Location: Fire brigade, Buseve (Croatie)

Present persons: Marko Boduljak (Flamark),
Boris Boduljak (Flamark),
Mate Banic (Flamark),
Dr. sc. Marijan Andrasec (Zagreb),
Luc Heirwegh (B & O, Belgium),
Gunther Willems (TUV Rheinland),
Luc Van Ranst (ANPI),
Georges Baes (ANPI).

Test object: According to 'Flamark, Fire Extinguishing Demonstration Manual for wooden hut of 16 ± 0,5 m³ (inner volume)', January 2006 (see Fig. 1 and Fig. 2).

Test set-up: Outdoors

Weather conditions: - temperature: 17 °C, cloudy
- wind direction: NW
- wind speed: < 3 m/s

Fuel: The fuel is prepared in advance by Flamark. It is a mixture of 4 l diesel oil and 1,5 gasoline in a basin. The operator takes several times, with a saucepan, approximately 250 ml fuel per turn out of the basin and disperses this arbitrarily in the test object. The estimated total quantity of fuel is 1,5 l (see Fig. 3 till Fig. 6).

Content saucepan: ± 1 l

Operator: Boris Boduljak (Flamark)


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Georges BAES
Product Manager



Wouter HUYSMANS
Head of Division Laboratories

Tests

Description	Test sequence
Test 1	
Mabo (automatic fire extinguisher): - content (ml): - manufacture date: The flask with the Mabo ampoule is fixed under the ceiling of the test object; - the distance to the ceiling (cm): - the distance to the floor (cm): (see Fig. 7)	570 6/2006 18 228
The moment of the burst of the Mabo ampoule after ignition (s):	32
The moment of the extinction after ignition (s):	46
Test 2	
Mab (grenade fire extinguisher): - content (ml): - manufacture date: (see Fig. 10) The operator throws the 'grenade' against the back wall of the test object. (see Fig. 11)	470 Unknown
The moment of the throwing of the 'grenade' after ignition (s):	8
The moment of the extinction after ignition (s):	35
Test 3	
Mixture of 9 l water and the contents of a Mab grenade (470 ml) in a basin	
- manufacture date of the MAB grenade: The extinguishing agent is prepared on-site. The operator takes maximum four times, with a saucepan, approximately 300 ml agent per turn of the mixture out of the basin and disperses this arbitrarily in the test object. (see Fig. 13 till Fig. 15)	Unknown
The moment of the dispersing of the extinguishing agent after ignition (s):	2
The moment of the extinction after ignition (s):	13

Conclusions

General

The test object and the fuel are supplied by FLAMARK. The same goes for the extinguishing apparatus. ANPI has not taken samples from the production.

The test method is ONLY applicable indoors. The orientation tests realized on 2006.09.26 have shown that the extinguishing result of an outdoor test set-up depends highly on:

- the wind direction;
- the wind speed.

Because of the buoyant fire plume after ignition it is impossible to state with certainty that the total fuel quantity arrives really at the indicated places (see Fig. 17). Moreover, the used fuel quantity is only a rough estimation.

During the manual extinction the pre-combustion time is not indicated, so the operator is free to start the extinguishing action. Furthermore, during 'test 3' the used quantity of extinguishing apparatus is only a rough estimation.

Since the criteria 'fire extinguished' are not established in the test procedure, the moment of 'fire extinguished' allows several interpretations.

Specific

Mabo (automatic fire extinguisher), content 570 ml, has a limited extinguishing zone in the test object (see Fig. 8 and Fig. 9). This is an important information for the redaction of the installation prescriptions (practical applications), especially the determination of the number and the location of the apparatus at the wall in a room. The orientation tests have indeed established that the fire is extinguished in a zone with a ray of approximately 1 m round the location where the apparatus is fixed against the wall (vertical projection). The manufacturer shall integrate these criteria (maximum height, maximum distance of the wall, maximum distance between two apparatus) in his installation prescriptions.

Mab (grenade fire extinguisher), content 470 ml, has a similar extinguishing effect. The location of the fire may not be further than 1 m of the wall against which the 'grenade' can be thrown (see Fig.12).

A mixture of 9 l water and the contents of a 'MAB-grenade' (470 ml), prepared in advance, in a basin and dispersed arbitrarily in the test object, gives a significant better extinguishing result (see Fig. 16). The fire is extinguished after a quantity of the extinguishing agent (± 300 ml mixture per turn) is dispersed with a saucepan, in maximum four turns, in the test object.

Pictures

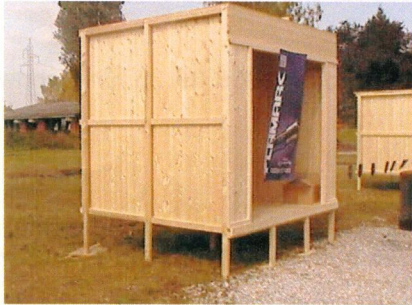


Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13



Fig. 14

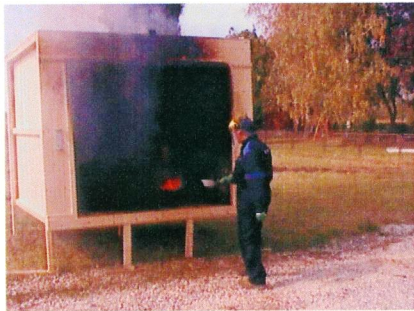


Fig. 15

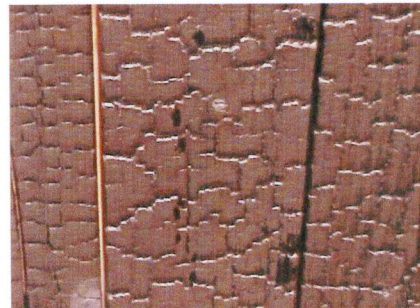


Fig. 16



Fig. 17

Remark:

The pictures above are a collection of the pictures taken during the orientation tests realized on 2006.09.26 and the tests realized on 2006.09.27. It gives a better view about the course of the tests.

Test report BFS/PX/1149 - 2006.10.15

Object: Testing of the fire extinguishing agent 'MAB' of Flamark

Extinguishing agent: **Mixture of 9 l drinking water and the contents of a 'MAB-grenade' (470 ml) in a basin.**

Date of the tests: 2006.09.29

Location: ANPI, Louvain-la-Neuve (Belgium)

Present persons: Boris Boduljak (Flamark),
Mate Banic (Flamark),
Luc Heirwegh (B & O, Belgium),
Gunther Willems (TUV Rheinland),
Luc Van Ranst (ANPI),
Michel Bourland (ANPI),
Georges Baes (ANPI).

Test object: Class A test fire 13 A in accordance with EN 3-7:2003, annex I, Portable fire extinguishers – Part 7: Characteristics, performance, requirements and test methods (See Fig. 1 and Fig. 2).

Test set-up: Indoors

Operator: Boris Boduljak (Flamark)


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Georges BAES
Product Manager



Wouter HUYSMANS
Head of Division Laboratories

Tests

The extinguishing agent is prepared on-site.
It is a mixture of 9 l drinking water and the contents of a 'MAB-grenade' (470 ml) in a basin.

The used 'MAB grenades' are manufactured (06/2006) by FLAMARK and are supplied for the tests.
ANPI has not taken any samples from the production.

The operator takes several times, with a saucepan, approximately 300 ml per turn of the mixture out of the basin and disperses this on the class A test fire 13 A (See Fig. 3 till Fig. 6).

Conclusions

Two class A test fires 13 A are extinguished by the operator in accordance with the test method described in EN 3-7:2003, Annex I. The test has been successful.

Pictures

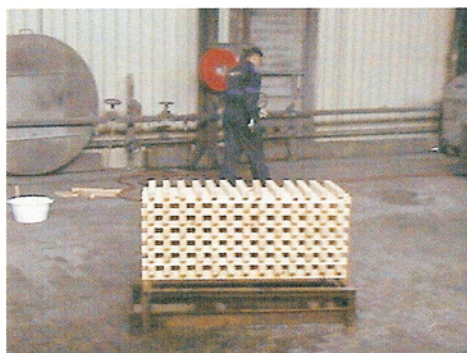


Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



ADVANCE FIRETEC AND RESEARCH LAB PVT. LTD
(ISO/IEC 17025 Accredited Testing Laboratory by NABL vide
Certificate number TC- 7009)

B-3, Mangolpuri Industrial Area, Phase -II, Delhi - 110034
Ph.: 09971032375 / 09582612307
E-mail : aftrlab@gmail.com



**TEST REPORT OF PORTABLE FIRE EXTINGUISHERS, FILLED WITH SPECIAL TYPE
LIQUID Fire RID (MABO/MAR1)M580/M581
AS PER IS: 15683:2018**

Report No. :- 3681
Date:- 10.05.2022
ULR -TC 700922100000229 F

PART-A

1) Customer's Name & Address

:- Bluescope AV Technologies Pvt. Ltd. A/58, Ajay Mittal
Industrial Estate. Bldg. no.1, 2nd Floor, Andheri Kurla
Road, Marol, Andheri (E), Mumbai - 400059.

2) Details of Sample Received:-

I. Type of Sample	:-	Portable Fire Extinguisher
II. Type of extinguishing agent	:-	Special type liquid Fire RID (MABO/MAR1)M580/M581)
III. Sample received on	:-	05.05.2022
IV. Referred Specification/Standard	:-	IS: 15683;2018
V. Capacity	:-	6 l
VI. Quantity received	:-	2 Nos 6L extinguisher +20L Fire RID (MABO/MAR1)M580/M581)
VII. Working Temperature	:-	(-)20°C to (+) 70°C
VIII. Fire Rating	:-	4 A, 144 B & 25F
IX. Packing & Sealing detail	:-	Packed in Cardboard box.
X. AFTRL Code No. of the Sample	:-	2205 -103 - 3835
XI. Acknowledge Slip No. / Job order No.	:-	FE / 1231
XII. Test Started on	:-	05.05.2022
XIII. Test Completed on	:-	09.05.2022
XIV. Any other Information	:-	i) Only Class A Fire test, Class B fire test, Class F fire test & Dielectric test carried out as requested by customer. ii) All information's related to the test items mentioned in Part - A are provided by the customer.

PART-B-

SUPPLEMENTARY INFORMATIONS IF ANY

SK Naur



PART- C – TEST RESULTS

Following Test Results of the sample have been obtained.

A. General Observation on the Extinguisher:- Portable Fire Extinguisher uses special type liquid Fire RID (MABO/MAR1)M580/M581) as an extinguishing agent.

Test Observation :-

1. Mechanical Testing

I. Performance / Durability / Safety Test

Sr No.	Testing Parameter (Clause Ref. No. of IS 15683;2018)	Test Observations	Requirements as per IS 15683;2018
1*	Fire Performance Test A Class Fire Rating(8.3) Fire Rating – 4 A	Passes All flames extinguished & no Visible flame found within 3 min after complete discharge of the extinguisher. Ambient temp.: 29°C, Wind Speed – 0.2 m/s	All flames would be extinguished & no flames would be visible 3 minutes after complete discharge of the extinguisher. as per Cl. 8.2.2 (a). Minimum Fire Rating required is 1A as per Table -3 (Cl – 8.1.1)
2*	B Class Fire Rating (8.4) Fire Rating –144B	Passes All flames extinguished. Ambient temp.: 29.4°C, Wind Speed – 0.5 m/s	All flames would be extinguished as per Cl. 8.2.2 (b).Minimum Fire Rating required is 55B as per Table - 4 (Cl – 8.1.2)
3*	F Class Fire Rating(8.5) Fire Rating –25F	Passes All flames extinguished. No re-ignition of oil within 3 min after complete discharge of the extinguisher. Ambient temp.: 29.2°C, Wind Speed – 0.1 m/s	All flames are extinguished. There shall be no re-ignition of the vegetable oil for 3 min after discharge.

2. Electrical Testing

I. Safety Testing Facility

Sr No.	Testing Parameter (Clause Ref. No. of IS 15683;2018)	Test Observations	Requirements as per IS 15683;2018
4	Electrical Conductivity (8.8)	The current between the earth and the extinguisher is 0.1 mA.	When the extinguisher is in operation and the metallic plate is live, the current between earth and the extinguisher shall be no more than 0.5 mA at any time during the complete discharge duration of the extinguisher.

S.K. Nandi



PART - D

Remarks :- 1. Test observations conform to the Extinguisher's Standard of IS: 15683;2018.
2. *Fire Tested on Site at Kamaspur, Sonipat.

Note :

1. The test results relate only to the sample tested.
2. This test report shall not be reproduced except in full, without written approval of the Laboratory.

----The End----

FOR ADVANCE FIRETEC AND RESEARCH LAB PVT.LTD.

Tested by



**S. Basu
Sr.Engineer**



Reviewed by



**S.K. Nandi
Director (Tech)**



V J T I

Veermata Jijabai Technological Institute

(Central Technological Institute, Maharashtra State, INDIA)

H. R. Mahajani Marg, Matunga, Mumbai 400019

Tel.No. +91 22 24198101-02 Fax: +91 22 24102874

www.vjti.ac.in

Project No. **SED/CON/TPQA/293/2021**

Date: 11/06/2022

No.: SED/CON/162

To,
Superintending Engineer,
National Health Mission,
2nd floor, Arogya Bhavan,
St. George Hospital Compound,
P. D'mello Road, Fort, Mumbai-400001.

- Ref.: 1) Letter vide no. राआसो/पासुविक/61510-517/2022 dated 01/06/2022.
2) Letter vide no. राआसो/पासुविक/925302-305/2022 dated 04/02/2022.
3) Letter vide no. NHM/IDW/98663-666/2021 dated 06/12/2021.

Sub.: Technical Evaluation of Self-activated Fire extinguishing system "FireRID-MABO"

Dear Madam,

Please find enclosed the detailed evaluation & test report on FireRID glass capsule self activated fire extinguisher submitted by M/s. BlueScope AV Technologies Pvt. Ltd.

Yours sincerely,

Dr. Abhay Bambole (Project Coordinator)
Professor and Head,
Structural Engineering Department,
V.J.T.I., Mumbai.



Encl: Technical Evaluation Report.

Copy to:

BlueScope AV Technologies Pvt. Ltd.

A/58, Ajay Mittal Industrial Estate,
Bldg No 1, A K Road, Marol, Andheri West,
Mumbai – 400059.



Veermata Jijabai Technological Institute

(Central Technological Institute, Maharashtra State, INDIA)

H. R. Mahajani Marg, Matunga, Mumbai 400019

Tel.No. +91 22 24198101-02 Fax: +91 22 24102874

www.vjti.ac.in

Date: 11/06/2022

Technical Evaluation of Self-activated Fire extinguishing system "FireRID-MABO"

Self-activated "FireRID-MABO" system, a fire extinguisher product marketed in India by Bluescope AV Technologies Pvt. Ltd., has been submitted for technical evaluation & tests. M/s. Bluescope also submitted the detailed product information, endorsements and test report/certificates. A demonstration of the product was done on 10th June 2022. Salient features of the product are as follows:

- 1) "FireRID-MABO" is an innovative fire extinguisher with a compact and elegant design based on a novel concept of self-activation.
- 2) The product is easy to handle and install. The extinguisher chemical of 580 ml is filled in a glass capsule of diameter - 60 mm, length - 307 mm and gross weight - 1025 gms (net weight of the chemical is 800 gms) with a coverage of 16 cum volume.
- 3) Its self-activation technology because a glass-based cylinder filled with a firefighting chemical agent allows it to activate automatically as the temperature is raised to around 84°C during the fire incident.
- 4) Test report issued by M/s. Advance Firetec and Research Lab Pvt. Ltd. (NABL accredited) and Inetrtek Deutschland GmbH certify that the product is applicable to A, B, C, E & F types of fires. FireRID i.e. Blue color chemical is applicable to the fires of Class A, B, C and E and FireRID Plus i.e. Yellow color chemical is applicable to the fires of Class A, B, C, E & F.
- 5) During the test it was also found that it can also be used as a simple hand grenade, in which the fire is extinguished by throwing the Glass Capsule n the fire from a safe distance without putting oneself in danger
- 6) The chemical agent also enhances the water firefighting capacity by when mixed with and the diluted solution can be used to douse the fire at multiple locations as well as bigger fires.
- 7) During the test it has been observed that the system is more effective on fires in closed premises.
- 8) The chemical is non-toxic and does not have any adverse effect on humans.

This product is best suited for hospitals (including field hospitals), sanatoriums and clinics, as it is not necessary to have trained personnel to use it. These fire extinguishers also consume less space compared to other/conventional fire extinguishers as well design is aesthetically appealing. Various certificates & test reports of the product submitted by the company have been perused. The product is tested and certified by Indian as well as internationally accredited laboratories.

During the live demonstration conducted at VJTI, it has been observed that the performance of the product is better than that of conventional fire extinguishers. The test conducted confirms the performance of the product as mentioned in the product brochure.

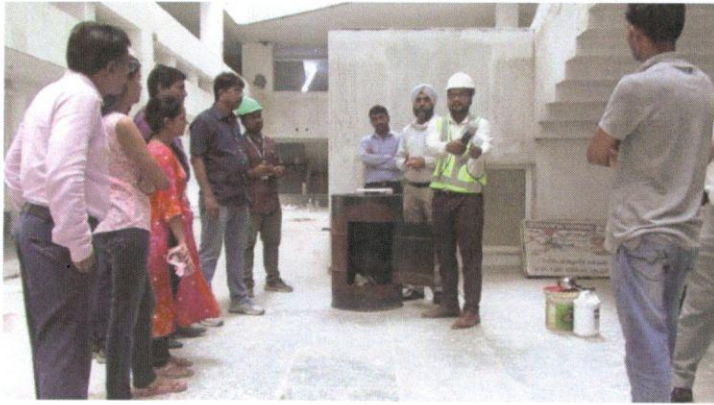


Dr. Abhay Bambole
Professor and Head
Structural Engineering Department

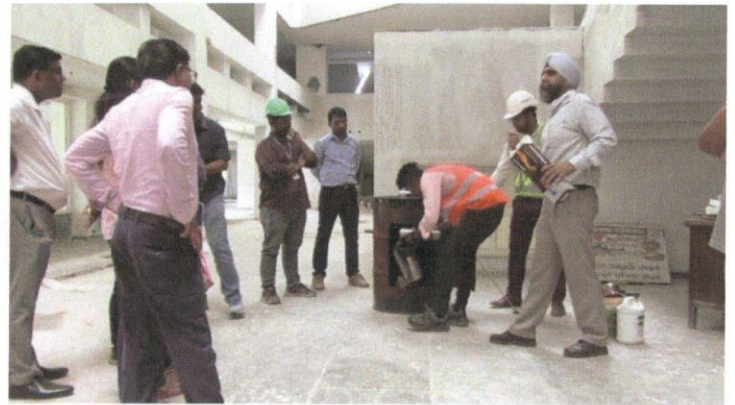
Encl.: Photographs of the test, product brochure and other endorsements.

Fire RID -- Demo in Self-Activated Mode

Fire RID Tech Information



Installing Fire RID inside drum



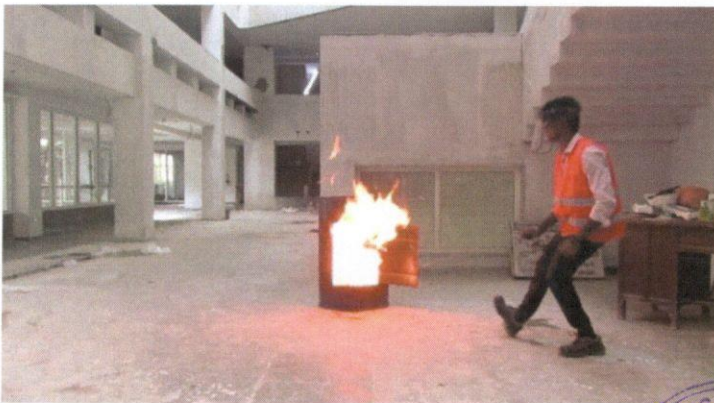
Fuelling the combustion



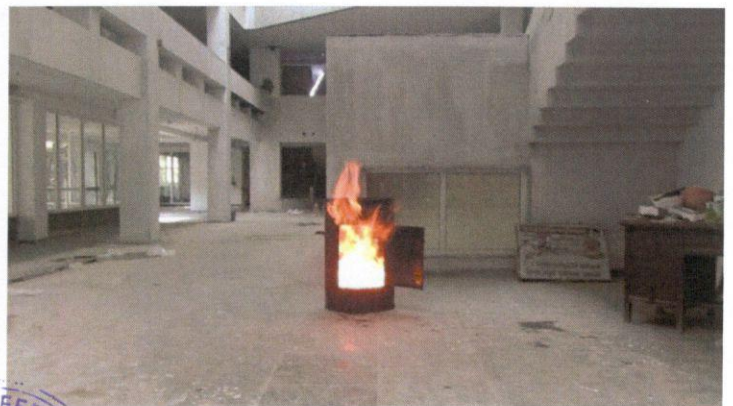
Igniting material



Fire started



Increasing the temperature



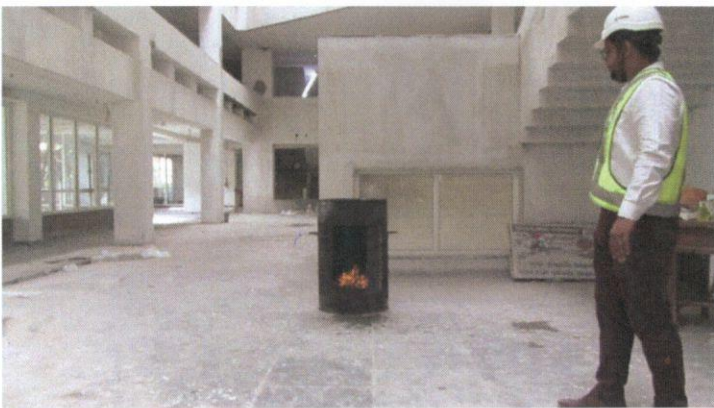
Fire RID Activated



Gases produces



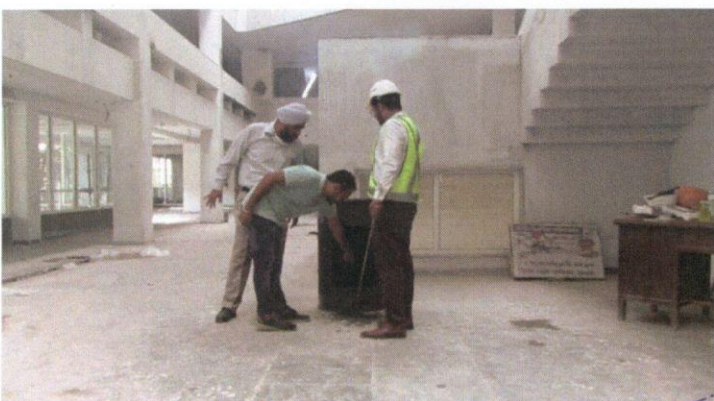
Fire extinguishes - 10 sec



Smoke eliminating



Post fire observation 1



Post fire observation 2



Fire RID -- Demo with Diluting in water 1

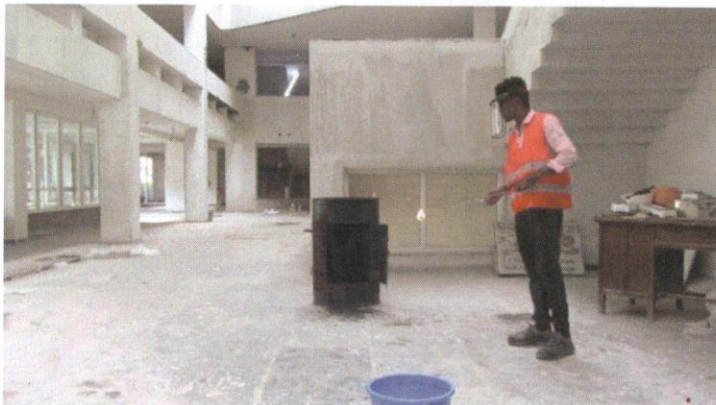
Fire RID chemical diluted in water



Mixing



Igniting fire



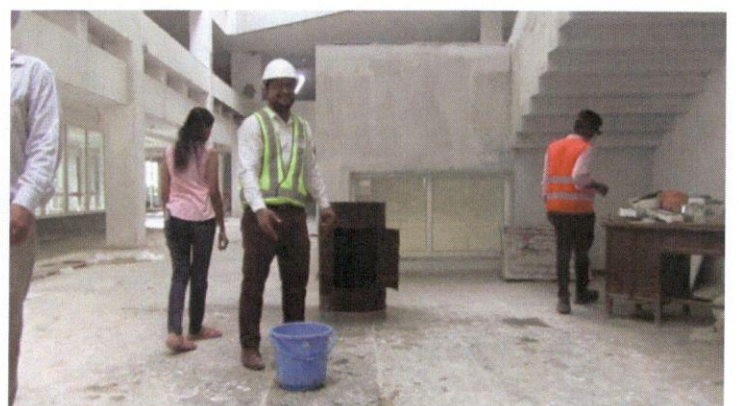
Fire started



Throwing diluted water in fire



Fire extinguished



Fire RID -- Demo with Diluting in water 2

Solid materials (Class A) use



Fuelling material



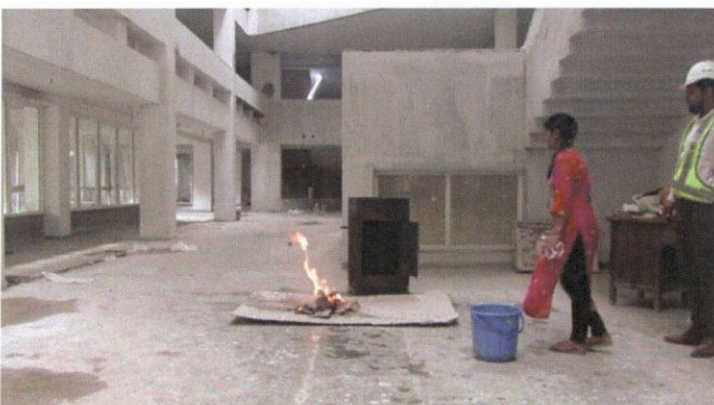
Igniting fire



Throw diluted water in fire



Fire extinguishing



Post fire observation



Fire RID & VJTI Team



भारतीय मानक
Indian Standard

IS/ISO/IEC 17050-1 : 2004

अनुरूपता मूल्यांकन — वितरकों द्वारा
अनुरूपता की घोषणा
भाग 1 सामान्य अपेक्षाएँ

Conformity Assessment —
Supplier's Declaration of Conformity

Part 1 General Requirements

ICS 03.120.20

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October 2016

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IS/ISO/IEC 17050-1 : 2004

CASCO National Mirror Committee, CMD II

NATIONAL FOREWORD

This Indian Standard (Part 1) which is identical with ISO/IEC 17050-1 : 2004 'Conformity assessment — Supplier's declaration of conformity — Part 1: General requirements' issued by the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) jointly was adopted by the Bureau of Indian Standards on the recommendations of the CASCO National Mirror Committee and approval of the Management and Systems Division Council.

This standard is published in two parts. The other part of this standard is:

Part 2 Supporting documentation

The text of ISO/IEC Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions and terminologies are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to the following International Standard for which Indian Standard also exists. The corresponding Indian Standard which is to be substituted in its place is listed below along with its degree of equivalence for the edition indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO/IEC 17000 : 2004 Conformity assessment — Vocabulary and general principles	IS/ISO/IEC17000 : 2004 Conformity assessment — Vocabulary and general principles	Identical

Annex A of this standard is for information only.

IS/ISO/IEC 17050-1 : 2004

Introduction

This part of ISO/IEC 17050 has been developed with the objective of providing general requirements for a supplier's declaration of conformity.

It addresses one of the three types of attestation of conformity, namely attestation undertaken by the first party (e.g. the supplier of a product). Other types are second-party attestation (e.g. where a user issues an attestation for the product the user is using) or third-party attestation. Each of these three types is used in the market in order to increase confidence in the conformity of an object.

This part of ISO/IEC 17050 specifies requirements applicable when the individual or organization responsible for fulfilment of specified requirements (supplier) provides a declaration that a product (including service), process, management system, person or body is in conformity with specified requirements, which can include normative documents such as standards, guides, technical specifications, laws and regulations. Such a declaration of conformity can also make reference to the results of assessments by one or more first, second or third parties. Such references are not to be interpreted as reducing the responsibility of the supplier in any way.

These general requirements are applicable to all sectors. However, these requirements might need to be supplemented for specific purposes, for example for use in connection with regulations.

A supplier's declaration of conformity of a product (including service), process, management system, person or body to specified requirements can be substantiated by supporting documentation under the responsibility of the supplier. In cases where this is desirable, or necessary, reference is made to ISO/IEC 17050-2.

भारतीय मानक
Indian Standard

IS/ISO/IEC 17050-2 : 2004

अनुरूपता मूल्यांकन — वितरकों द्वारा
अनुरूपता की घोषणा

भाग 2 सहायक प्रलेखन

Conformity Assessment —
Supplier's Declaration of Conformity

Part 2 Supporting Documentation

ICS 03.120.20

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Price Group 1

IS/ISO/IEC 17050-2 : 2004

CASCO National Mirror Committee, CMD II

NATIONAL FOREWORD

This Indian Standard (Part 2) which is identical with ISO/IEC 17050-2 : 2004 'Conformity assessment — Supplier's declaration of conformity — Part 2: Supporting documentation' issued by the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) jointly was adopted by the Bureau of Indian Standards on the recommendations of the CASCO National Mirror Committee and approval of the Management and Systems Division Council.

The text of ISO/IEC Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions and terminologies are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards which are to be substituted in their respective places are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO/IEC 17000 : 2004 Conformity assessment — Vocabulary and general principles	IS/ISO/IEC17000 : 2004 Conformity assessment — Vocabulary and general principles	Identical
ISO/IEC 17050-1 : 2004 Conformity assessment — Supplier's declaration of conformity — Part 1: General requirements	IS/ISO/IEC17050-1 : 2004 Conformity assessment — Supplier's declaration of conformity : Part 1 General requirements	do

IS/ISO/IEC 17050-2 : 2004

Introduction

A supplier's declaration of conformity is a form of attestation of conformity to meet demands from the market and regulators for confidence. The acceptance of a supplier's declaration of conformity could be enhanced by retaining documented information on which the supplier bases the declaration and making this documentation available upon request.

This part of ISO/IEC 17050 specifies requirements for the documentation to support a supplier's declaration of conformity. Besides enhancing confidence in the supplier's declaration of conformity, such documentation may assist relevant authorities in their surveillance activities.

Conformity of a product (including service), process, management system, person or body to specified requirements, which can include normative documents such as standards, guides, technical specifications, laws and regulations, may need to be rigorously substantiated under the responsibility of the supplier, irrespective of the industry sector involved.