Ref: IFE/FTRL/105/Fx Safe/2019-20/9661 Dated: 10/09/2019

To,
M/s. Fx Safe & Safety Products LLP,
Plot No. 25 & 26, MIE, Block-D (Exp.),
Auto Nagar, Gajuwaka,
Visakhapatnam – 530012,
A.P.

Sub: - Test Report No. 00000253 dated 10.09.2019.

Dear Sir,

Enclosed here with please find the Test Report No. 00000253 dated 10/09/2019 in respect of Fire Extinguishing Ball, tested in this laboratory.

A feedback form is also sent herewith which may please be filled & returned to this office.

Thanking you & assuring you of our best professional attention always

Yours faithfully,

Fire Test And Research Laboratory SONIPAT DELHI

Authorised Signatory

AS PER STANDARD TEST METHOD

REPORT NO. : 00000253
DATE:- 10/09/2019

PART- A

Details of Sample Received: -

1.	Type of Sample	:- **FIRE EXTINGUISHING BALL(DRY CHEMICAL POWDER ABC TYPE)**
2.	Brand Name	:- FX Safe (Fire Xterminator)
3.	Capacity	:- 1.27Kg.
4.	Fire Rating	:- Class 'A' and Class 'B'
5.	Referred Standard	:- NILL
6.	Test Method	:- As per clients Testing Manual for Fire Extinguishing Balls
7.	Date of Receipt of Sample(s)	:- 02-09-2019
8.	IFE Code No. of the sample	:- 1909-103-2438
9.	Test Started on	:- 02-09-2019
10.	Test Completed on	:- 09-09-2019

PART- B

DESCRIPTION OF SAMPLE: -

08 nos. of 1kg Fire Extinguishing Balls (Dry Powder Type) were submitted by the client. The Samples (Fire Extinguishing Balls) were meant for small fires and in the round shape with soft shell that contains the extinguishing agent (Dry Powder) and the fire ignition material (fuse).

NATURE AND METHOD OF TEST

The fire extinguishing balls (Dry Powder type) were tested as per the clients own Testing Manual for Fire Extinguishing Balls. At the request of the client, all the tests specified in the Testing manual were conducted and reported under Part- C of this test report.

OBSERVATIONS AND FINDINGS

Note:- The sections that follow reflect different Parameters, Requirements, Test Method, and Observations.

Fire And Research Laboratory SONIPAT DELHI

A Unit of
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PART- C

TEST RESULTS: -
GENERAL REQUIREMENTS

General Appearance -
The extinguishing balls shall not show any cracks, tears or leakage of the extinguishing agent, when inspected visually.

Observations - Complies

Following Test Results have been obtained on the sample

Sl. No.	Testing Parameter	Requirements	Test Observations	Test Method
1.	**Shelf Life Test for Extinguishing Agent contained inside Fire Extinguishing Ball.**	After aging the ball for 07 days or more the chemical powder shall be examined & It shall not agglomerate.	The Chemical Powder does not agglomerate within 7 days.	The ball with the age of one year or more must be tested by taking out the soft shell of Fire Extinguisher Ball, the Chemical Powder can be examined.
2.	**Moisture aging Test of the Chemical Powder.**	After moisture aging for 07 days the Chemical Powder shall be examined & It shall not agglomerate.	The powder does not agglomerate.	To Test moisture aging of the Chemical Powder, a Desiccator or similar functional device can be used. This can be conducted by filling water at the bottom of the device. Hanging the ball above water and then sealing and keeping the device at room temperature for 07 days.
3.	**Thermal Resistance Test after conditioning at 85°C for 24 hrs.**	After conditioning at 85°C for 24 hrs., Fire Extinguishing Balls shall not have cracks, tears or leakage of the extinguishing agent on their shell, which is tested by the inspection.	After conditioning at 85°C for 24 hrs., the ball does not show any cracks, tears or leakage of the extinguishing agent.	The Fire Ball shall be conditioned at 85°C for 24 hrs.
4.	**Test for Burst Effect**	On bursting the Fire Extinguishing Ball by pouring flammable liquid on the ball, the glasses used in the test shall not be cracked or break.	On igniting and Bursting the Fire Extinguishing Ball by pouring flammable liquid on the ball, the glasses used in the test does not crack or break.	The ball container with dimension of 56x56x56 cm constructed from the strong frame and 5 mm thick normal glasses for 4 sides by opening the top and the bottom. On bursting the ball by pouring flammable liquid on the ball.
5.	**Sound Level Test**	When Fire Extinguishing Balls are tested for the sound pressure level emitted from the burst, t shall not be more than 140 dB.	Fire Extinguishing Ball emits sound pressure level of 125 dB measuring from 2.0 mtr. distance.	Fire Extinguishing Balls are tested for the sound pressure level emitted from the burst.
6.	**Resistance to compression**	Fire Extinguishing Balls are subjected to compression with a load of 5 kg for 1 hr.	Fire Extinguishing Ball does not show any cracks, tears or leakage when Fire Ball was subjected to compression with load of 5 Kg for 1hr.	Fire Extinguishing Ball shall not have any cracks, tears or leakage of the extinguishing agent on their shell.

Fire Test Research Laboratory
SONIPAT
DELHI

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Sl. No.	Testing Parameter	Test method followed	Test Observations	Requirements
7.	**Drop Test**	The fire extinguishing balls are tested by dropping them to the ground height of 2.5 mtr. from a cement floor.	When dropped from a height of 2.5m on cement floor, the Fire Ball does not show any cracks, tears or leakage of the extinguishing agent on the shell.	When the Fire Extinguishing Balls are tested by dropping them to the ground height of 2.5 mtrs. from a cement floor, shall not have any cracks, tears or leakage of the extinguishing agent on their shell.
8.	**Performance for the Extinguishment (Fire Test)**	Small Fire test should be carried out in an enclosed area of 1x1m having mixed fire hazards of A & B Class i.e., paper, wood, cloth, electric wires & igniting it by spilling liquid fuel of n-Heptane.	The Fire Extinguishing Balls show satisfactory results in extinguishing Class A & B fires in an small enclosed area of 1x1m having mixed fire hazards.	The Fire Extinguishing Balls must meet the criteria for acceptance of class A & B fire rating to be carried out in an enclosed area of 1x1m having mixed fire hazards of A & B Class.

PART-C
REMARKS:-

1. Fire Rating achieved: **Yes**
2. Name & Address of the Client (Sample received from) & their reference:-

M/S. Fx Safe and Safety Products LLP,
Plot No. 25 & 26, MIE Block-D (Exp.),
Auto Nagar, Gajuwaka,
Visakhapatnam - 530012, A.P.

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.

For Fire Test & Research Laboratory

Tested By

Neha
(NEHA)
Scientist

Reviewed & Issued By

Fire Test And Research Laboratory SONIPAT DELHI

(PRADEEP KUMAR)
Sr. Scientist

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