

Made in E&F YOUR LIFE INSURANCE



E&F M2 Sliding type

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Overview

E&F LIFELINE (Fire Shelter Box) is a **multi-purpose** evacuation system. Until a rescue **comes**, this is a perfect evacuation space **for during** a fire or any other emergency **situations**.



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Examples of construction

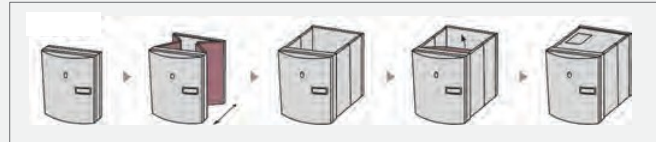


E&F M1 Folding Type

- Evacuation space for both **low- & high-rise** buildings that are **vulnerable** to fire **&** toxic gas.
- Compacted for installation but extends in an evacuation. It extends toward the exterior part of the building.
- Rescue **is** safely done by the rescue team using the exterior rescue door.



- 서식 있음: 글꼴 색: 빨강
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Operating Sequence



Wall Installation on the wall

- 서식 있음: 글꼴 색: 빨강
- 서식 있음: 글꼴 색: 빨강

Unfolded at emergencies
to making space for
evacuation

Nonpowered operation
silica

Double door molding with
rope gasket for toxic gas shutoff

Cerak wool which preventing
prevents radiant heat at a
Maximum of 1,200 °C
(2192 F)

서식 있음: 글꼴 색: 빨강

서식 있음: 글꼴 색: 빨강

서식 있음: 오른쪽: -0.18 cm

서식 있음: 글꼴 색: 빨강

서식 있음: 글꼴 색: 빨강

서식 있음: 글꼴 색: 빨강

서식 있음: 글꼴 색: 빨강

External Communications Network
Direct connection to police office, station, fire station, and residence janitor's office

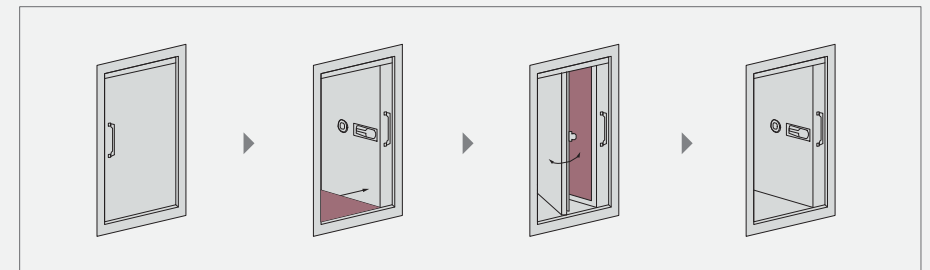
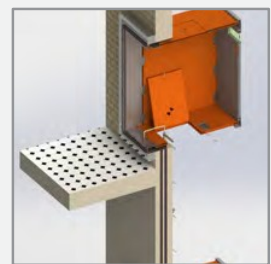
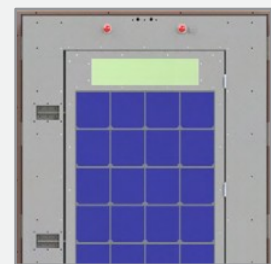
Sight Glass
Enables to rapidly check of the inside / outside situations

Folding Ladder
Allows for post-evacuation by using the ladder that reaches down to the lower shelter box.

Interfloor Connection
The lower shelter box lid opens with the wire, providing another way to for evacuation.



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서식 있음: 글꼴 색: 빨강



E&F M3 Emergency Shelter

- Hideaway space for **emergencies**.
- Suitable for use in hazardous **locations**.
- Fire **&** toxic gas detection systems.
- **With an oxygenator** installed inside to help evacuees breathe comfortably.

Emergency
Flashing
lightLight

Emergency
telephoneT
elephone

Exhaust
pipeP
ipe

Air inlet
Inlet
pipeP
ipe

Sight **glassGlass** Knob

E&F M4 Heat-/Smoke-Smoke-Resistant Fire Door

- Fire door **securing secures** the performance of heat and poisonous gas resistance up to **two** hours
- Double door molding with silica rope gasket for complete toxic gas shutoff
- **With anti**-deformation structure against heat

서식 있음: 글꼴 색: 빨강

서식 있음: 글꼴 색: 빨강

서식 있음: 글꼴 색: 빨강

서식 있음: 글꼴 색: 빨강

서식 있음: 오른쪽: -0.23
cm

서식 있음: 글꼴 색: 빨강

서식 있음: 글꼴 색: 빨강

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서식 있음: 오른쪽: -0.18
cm

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대피공간 관련 **범정 개정**

건축물의 피난, 방화구조 등의 기준에 관한 규칙 일부 개정

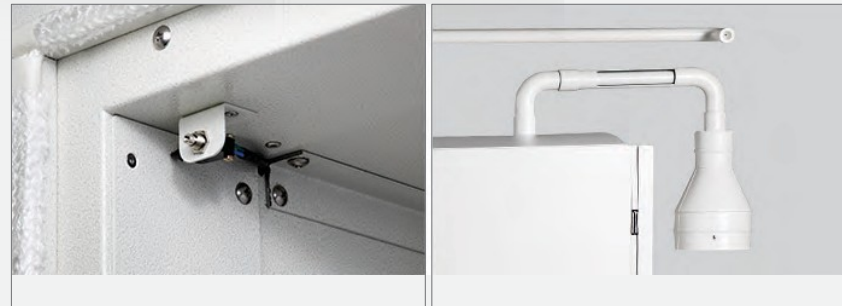
(2015.04.06 공포, 2016.04.07 시행)

현행	개정
제 26 조 (방화문의 구조) 영 제 64 조의 규정에 의한 갑종 방화문 및 을종 방화문은 국토교통부장관이 정하여 고시하는 시험기준에 따라 시험한 결과 각각 비차열 1 시간 이상 및 비차열 30 분 이상의 성능 이 확보되어야 한다. (단서 신설)	제 26 조(방화문의 구조) 다만, 영 제 46 조 제 4 항에 따라 아파트 발코니에 설치하는 대피공간의 갑종 방화문은 차열 30 분 이상의 성능 이 확보되어야 한다.

메모 [11]: TO CLIENT: Note that this portion has not been translated. Please check.

Limit Switch (operates light, fan, air inlet, & exhaust pipes)

Air outlet/Outlet (Air inlet & exhaust)



- 서식 있음: 오른쪽: 0.08 cm
- 서식 있음: 글꼴 색: 빨강
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Customization Options

	E&F M1 Folding Type	E&F M2 Sliding Type	E&F M3 Emergency Shelter	E&F M4 Fire/Smoke/Smoke-
Material				
- Metal				
- Stainless steel				
- Stainless steel (bullet proof)				
Size (L x W x H)				
- Standard size	Folded 1,040 x 340 x 1,320 (mm) 40.9 x 13.4 x 51.9 (in)	Closed 1,300 x 1,170 x 1,580 (mm) 51.2 x 46.1 x 62.2 (in)	1,170 x 1,700 x 1,360 (mm) 43.3 x 66.9 x 53.5 (in)	Standard size 900 x 1,360 (mm) 35.4 x 82.7 (in)
- Large size	Unfolded 1,040 x 1,170 x 1,320 (mm) 40.9 x 46.1 x 51.9 (in)	Opened 2,040 x 1,170 x 1,580 (mm) 80.3 x 46.1 x 62.2 (in)		
- Customization				
Color Customization				
Oxygenator				

Accreditations



New Excellent Technology Certification
 The Ministry of Knowledge Economy
 April 26, 2012

Excellent Performance Certification
 The Small and medium-Medium Business Administration
 January 04, 2012

New Excellent Technology Certification
 The Ministry of National Defense
 February 20, 2012

Excellent Product Certification
 Public Procurement Service
 June 27, 2012

Seoul International Invention Fair 2nd Grand-Grand Prize Korea Invention Promotion Association
 December 02, 2012



Army New Technology Excellent Product-Product Certification Venture Company Certification (KIBO)

Domestic-Local Patent, 8 cases
 10-0998240, 10-1036763, 10-1055294, 10-0070396
 10-1117548, 10-1224611, 10-1036764, 10-1578929
 PCT, KR2011/003919

PCT Overseas: 3

Individual Patents in the USA, Japan, and China

서식 있음: 글꼴 색: 빨강

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서식 있음: 글꼴 색: 빨강

서식 있음: 들여쓰기: 왼쪽: 0.7 cm, 내어쓰기: 2.32 글자, 오른쪽: -0 cm

서식 있음: 오른쪽: 6.6 cm

서식 있음: 글꼴 색: 빨강

서식 있음: 글꼴 색: 빨강

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서식 있음: 글꼴 색: 텍스트 1

서식 있음: 글꼴 색: 빨강

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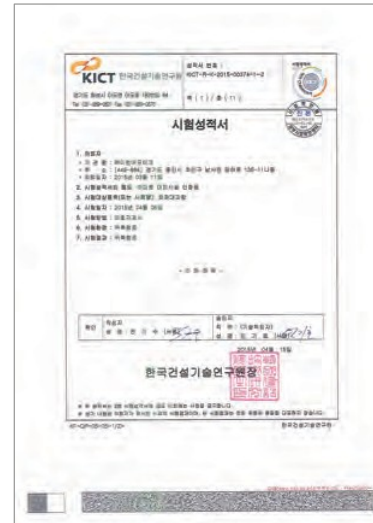
서식 있음: 들여쓰기: 첫 줄: 0.34 cm

서식 있음: 글꼴 색: 빨강

서식 있음: 글꼴 색: 빨강

서식 있음: 글꼴 색: 빨강

Certifications



Heat Resistance Performance Test Report



Load Bearing Capacity Performance Test



Gas Resistance Performance Test Report

[Korea Institute of Construction Technology]

Time	Chamber:	Internal:
10 min: passed	678°C / 1252°F	12.7°C / 54.8°F
20 min: passed	781°C / 1438°F	16.0°C / 60.8°F
30 min: passed	842°C / 1548°F	20.2°C / 68.4°F
40 min: passed	885°C / 1625°F	26.2°C / 79.2°F
50 min: passed	918°C / 1684°F	36.5°C / 97.7°F
60 min: passed	945°C / 1733°F	47.2°C / 116.9°F



Testing of deformation when 380 kgs (838 lb) weight is uniformly loaded on the lower panel.
 ✖Test result: No deformation

[Korea Institute of Construction Technology]

Pressure Difference	Air Leakage Volume	Pressure Difference	Air Leakage Volume
5	0.00	70	0.20
10	0.00	100	0.30
25	0.10	5	0.00
50	0.12	100	0.30
Unit: {Pa}	{m³/(min·m²)}	Unit: {Pa}	{m³/(min·m²)}

At 25 Pa, the air leakage volume is 0.18 (m³/(min·m²)). This is 20% of the IBC (International Building Code) standard, which is as 0.90 (m³/(min·m²)) as at 25 Pa.

Examples of Construction

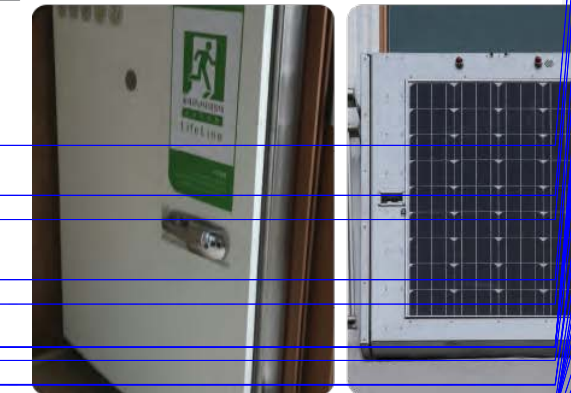
LG Xi Apartment
Seoul, Korea



Korean army Army official-
Official residence-Residence,
Choongnam, Korea



Chamnuri Apartment
— Dongtan, Korea



A vertical stack of 20 blue buttons, each containing the Korean text "서식 있음" (Living) and a small icon of a person sitting at a desk. Each button has a small "..." icon in the top right corner. The buttons are arranged in a single column and are connected by thin lines to various parts of the construction examples on the left.