KFPA

Korean Fire
Protection Association

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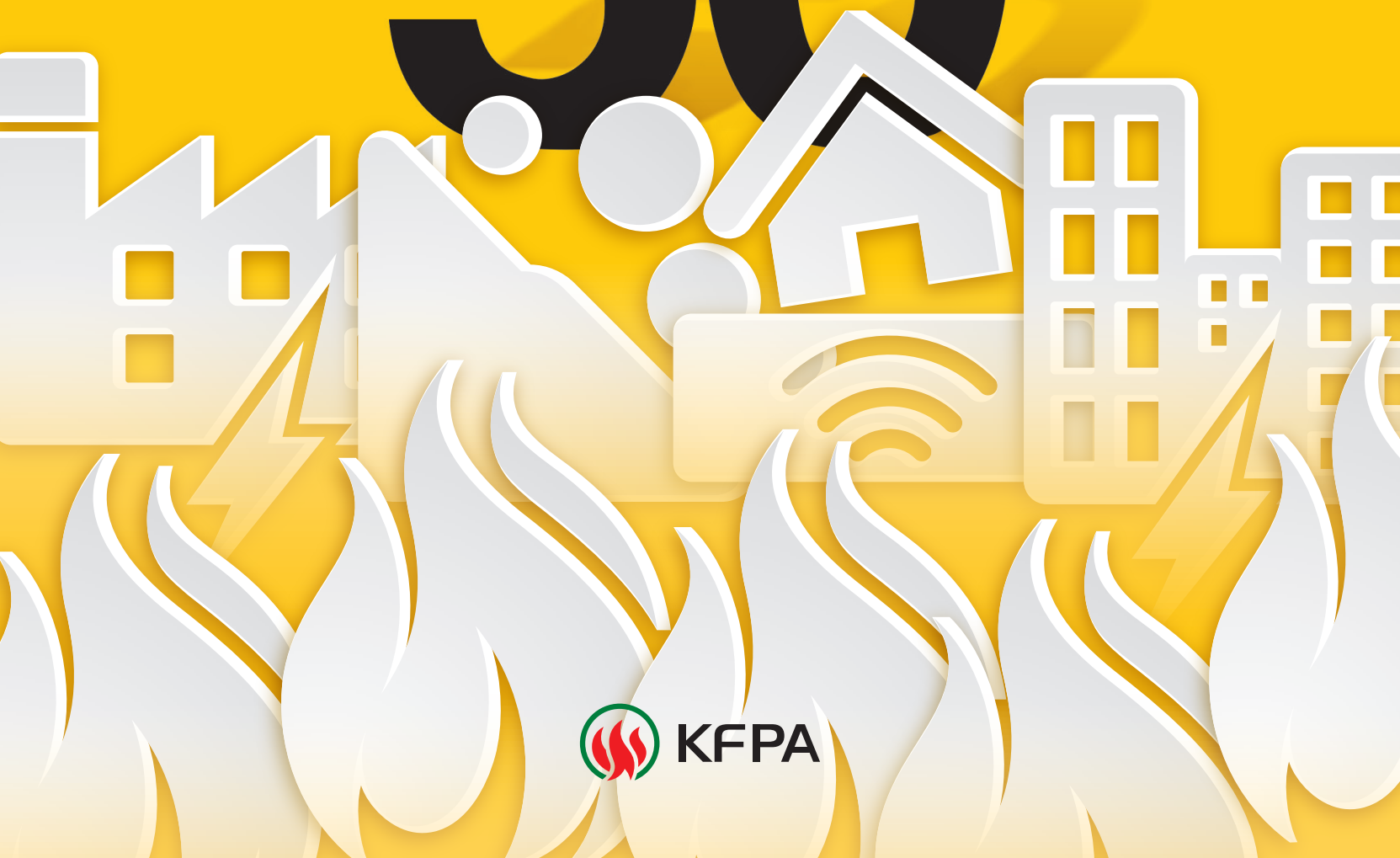

KFPA

Korean Fire Protection Association,
"A global risk management service organization"
protects the safety and happiness of Korea.

- Protects valuable lives and properties from fire and disasters.
- Contributes to reducing insurance loss ratios with disaster prevention measures.
- Leads the disaster prevention industry by operating the Fire Insurers Laboratories of Korea, an internationally recognized testing agency(KOLAS).
- Takes the lead in insurance fraud prevention through fire cause investigations.
- Helps to foster a culture of safety through fire prevention education.


Since 1973
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KFPA Overview

KFPA Operations

Fire Insurers Laboratories of Korea

KFPA Member Companies and Offices

WHAT IS KFPA?

Background of Establishment

A series of large fire accidents in the early 1970s spurred the government to enact the Act on the Indemnification for Fire-caused Loss and the Purchase of Insurance Policies (Act No. 2482 promulgated on Feb. 6, 1973) to prevent disasters and restore damages, and the KFPA was established accordingly.

Fire at Daeyeongak Hotel (163 casualties in 1971) / Fire at Seoul Citizens Hall (53 casualties in 1972)

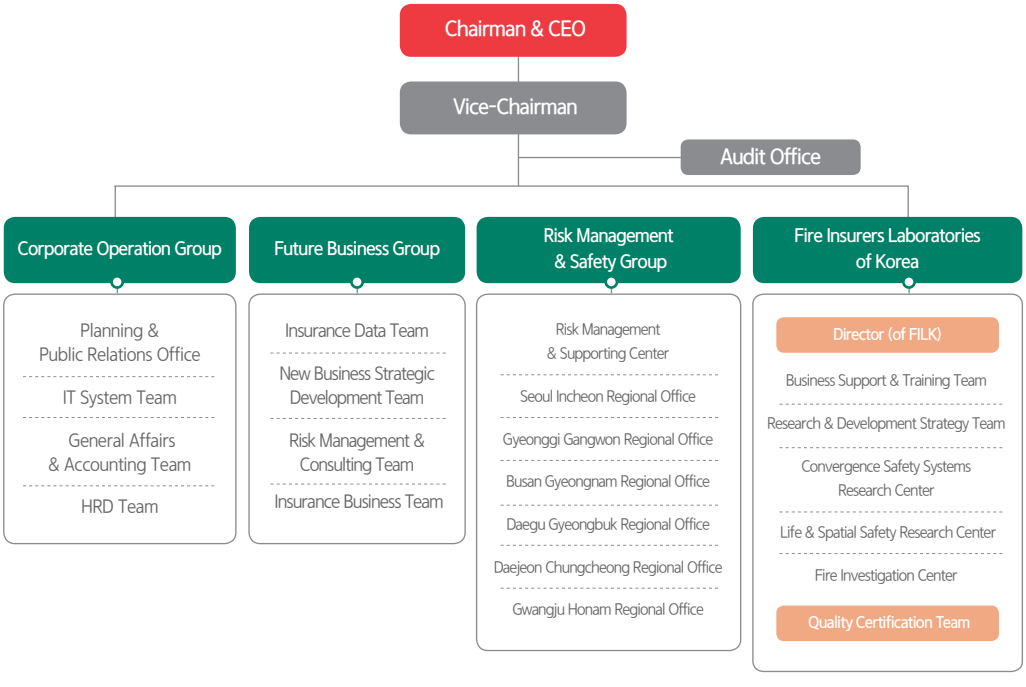
Social Problem

Act on the Indemnification for Fire-caused Loss and the Purchase of Insurance Policies (Feb. 6, 1973.)

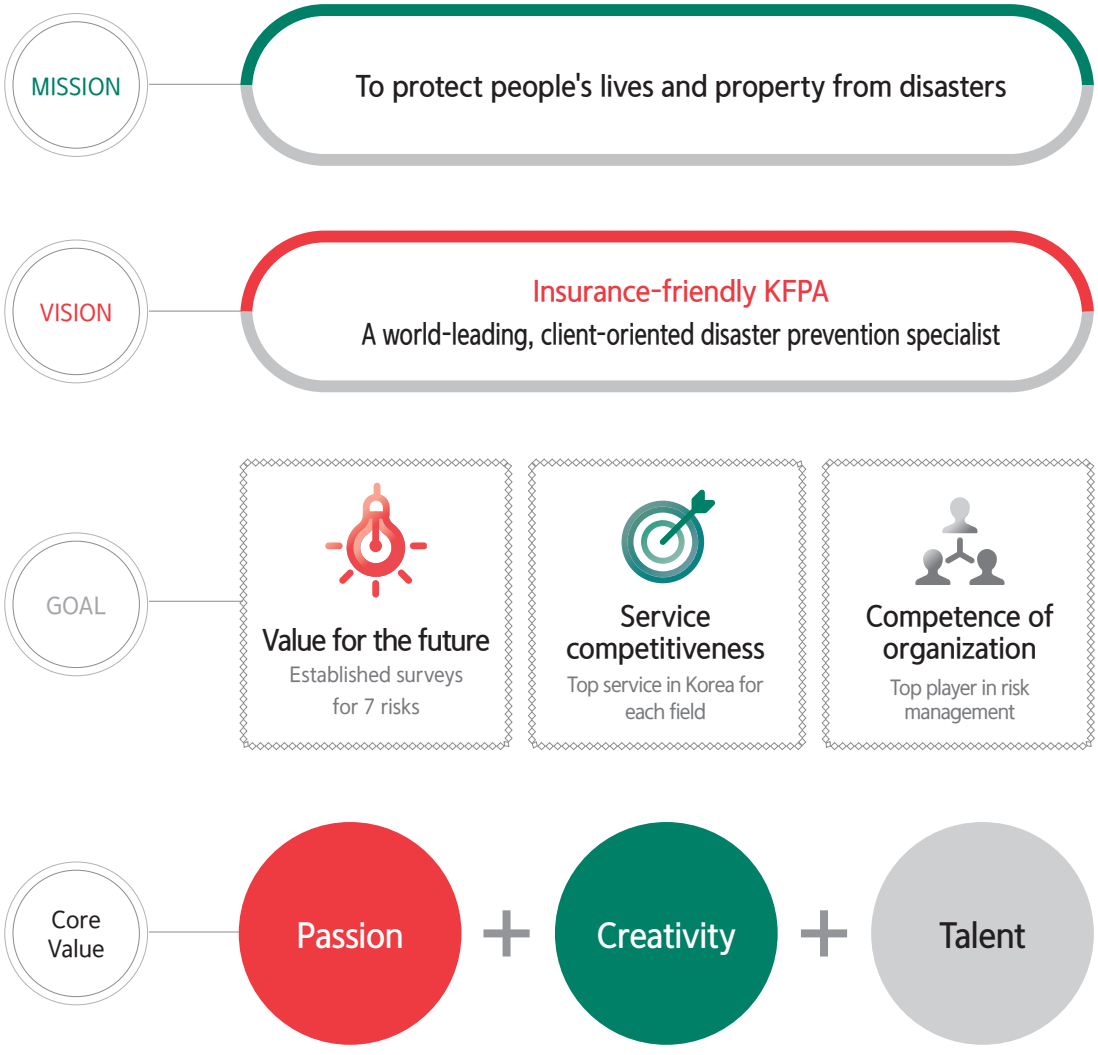
Prevention of accidents	Restoration of damages
▲ KFPA*	▲ Obligatory insurance system

* Benchmark the cases by developed countries when establishing/operating a disaster-prevention organization centered from the insurance industry that is strongly involved in disasters (e.g., NFPA, UL, FM Global in the USA, FPA in the UK, CNPP in France, VdS in Germany)

Organization Chart



KFPA management philosophy



The KFPA conducts scientific safety inspections on fire, explosion, collapse, and natural disaster prevention facilities to suggest solutions. It is leading the way in fostering a culture of fire safety through prevention education and is helping to reduce fire insurance loss ratios by developing disaster prevention-related industrial technologies and distributing advanced disaster prevention technologies. It also strives to prevent insurance fraud by conducting fire cause investigations. Through such efforts, the KFPA creates customer value, offers advanced convergence technologies for disaster prevention, and is taking the lead in creating a society safe from disasters.

The KFPA will continue to fulfill its role as a "world-leading, client-oriented disaster prevention specialist" that protects people's lives and properties and contributes to the sound development of the insurance industry by preventing fires, explosions, natural disasters, and various other emergencies.

HISTORY OF KFPA

1973-1997

1973
- Enactment of the Act on the Indemnification for Fire-caused Loss and the Purchase of Insurance Policies (Act No. 2482)
- Establishment of KFPA

1975
- Merge of General Insurance Joint Underwriting Office(initiation of handling fire insurance for specific buildings)

1977
- Completion of Yeouido headquarters

1986
- Establishment of Fire Insurers Laboratories of Korea(FILK)

1989~1992
- Step-by-step dismantlement of the pool of fire insurance for specific buildings (except for security buildings)

1995
- Publication of the complete set of NFPA Codes in Korean

1996
- MOU with National Fire Protection Association(NFPA), USA

1997
- Expansion of the safety inspection on specific buildings nationwide

2005~2014

2005
- Winning Presidential Award for Organization on the 43th Day of Firefighting

2009
- MOU with the formerly National Emergency Management Agency for fire prevention information exchange

2010
- MOU with National Police Agency for reinforced fire investigation
- Establishment of the International Association of Arson Investigators Korea (IAAI Korea)

2011
- Added public building, transportation facility, and multi-use facilities to the list of specific buildings.
- Executed Excellent Building Recognition Policy for Fire Safety.

2012
- Production and proclamation of KFPA character

2014
- Expansion of the scope of safety inspections, etc. from only fires to explosions, collapses, and other similar disasters
- Conducting investigations and research on natural disaster risk assessment and damage prevention

2015~

2015
- Winning the Presidential Award for Organization in Law and Science at the 11th Forensic Awards

2016
- Winning the Presidential Award for Organization on the Day of Fire Service Recognition (recognized with contribution to nation's social development through capacity building in fire safety)
- Winning the Award for Organization in Safety Culture 2016 from the Ministry of Public Safety and Security

2017
- Revision of the Act on the Indemnification for Fire-caused Loss and the Purchase of Insurance Policies along with its Enforcement Decree and Enforcement Rule (obligated liability for property damage by fire)
- MOU with The Danish Institute of Fire and Security Technology (DBI)

2019
- MOU with National Fire Agency for fire prevention and technology development
- Winning the Award for Organization from the Ministry of Health and Welfare for protection of senior citizens living in solitude

2021
- Winning the Prime Minister's Award for Education Donation from the Ministry of Education
- Winning the Prime Minister's Award for Safety Culture Campaign from the Ministry of the Interior and Safety

KOREAN FIRE PROTECTION ASSOCIATION



The KFPA researches, develops, and provides safety inspections for the prevention of fires, explosions, collapses, and natural disasters as well as risk management services and general insurance risk management techniques. It offers disaster prevention consulting service to suggest sensible disaster prevention measures for buildings and organizes various promotions to establish a culture of fire safety.

FIRE SAFETY INSPECTION

KFPA's Fire Safety Inspection is performed by experienced experts with various certified licenses in the field of fire safety who majored in architecture, chemistry, electricity and mechanical engineering.
State-of-the-art inspection equipments are used to examine risk factors of fire in a scientific way to provide perfect measures for fire prevention.
Its technical consultations on risk management techniques are also dedicated to economic interests.

What is the safety inspection?

KFPA's Fire Safety Inspection includes such comprehensive fire prevention activities that are to discover the causes of fire and other hazards inherent in the fire protection facilities of a building or the working process of a factory, to aggressively work with the property owners to eliminate the risks, and to suggest measures for prevention and insurance to minimize losses in case of a disaster.

Major inspection targets

Major targets of the Safety Inspection are all facilities related to fire risks: fire protection facilties of buildings, electrical installations, fireusing facilities, gas facilities, fire alarm facilities, emergency exit facilities, fire extinguishing facilities, mechanical facilities, hazardous material facilities, firewater system, facilities for fire suppression activities, and process risk facilities.

Period of KFPA's Fire Safety Inspection

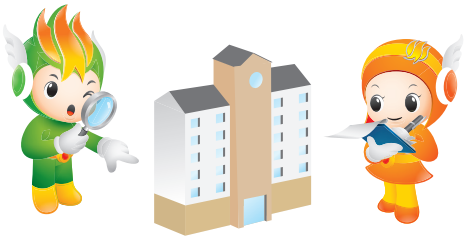
KFPA's Fire Safety Inspection of Specific Buildings is performed on a yearly basis. It is also conducted when an insurance contract is made or renewed, as well as when there are requests from the property owners or general insurance companies. However, a specific building which had no fire for consecutive 10 years and was evaluated as fire safety level 1 is exempt from the next-year safety inspection after the last safety inspection unless there is a fire in the building or its purpose of use is altered.

Fire safety consultancy

KFPA provides technical consultancy about the whole systems of fire protection upon requests from the property owners or builders when they construct new buildings or reform the fire protection system of an old buildings.

Why is KFPA's Safety Inspection significant?

We need to consult a doctor periodically for our health. Likewise, buildings and industrial plants need fire safety inspections for keeping their normal operations. KFPA's Fire Safety Inspection of Specific Buildings is appreciated for great safety management of buildings as it not only works out necessary fire prevention measures against various fire risks, but also suggest reasonable insurance plan based on essential data required for insurance contracts of the specific buildings, providing assessment of premium discount for fire protection system.



What is a Specific Building?

As a building where many people enter, work and reside in accordance with the Act on the Indemnification for Fire-caused Loss and the Purchase of Insurance Policies, it refers to one of the following buildings prescribed by the Presidential Decree in consideration of risks of fire and the area of the building.

National properties

Buildings with total floor area of 1,000 ㎡ or more and their annex buildings used for the same purpose, stated in Article 5 (1) 1 of the State Property Act

Public buildings

Buildings with total floor area of 1,000 ㎡ or more and their annex buildings used for the same purpose among the real estates pursuant to Article 4 (1) 1 of the Public Property and Commodity Management Act

Educational institutions

Buildings of which the total floor area of the parts used as educational institutions is 2,000 ㎡ or more, stated in the Act on the Establishment and Operation of Private Teaching Institutes and Extracurricular Lessons

Hospitals

Buildings of which the total floor area of the parts used as general hospitals or clinics is with total floor area of 3,000 ㎡ or more pursuant to Article 3 (2) 3 of the Medical Service Act

Accommodations

Buildings used for tourism and accommodation business with the total floor area of 3,000 ㎡ or more pursuant to Article 3 (1) 2 of the Tourism Promotion Act and buildings used for accommodation business with the total floor area of 3,000 ㎡ or more pursuant to Article 2 (1) 2 of the Public Health Control Act

Public performance facilities

Buildings used as public performance facilities with the total floor area of 3,000 ㎡ or more pursuant to Article 2 (4) the Public Performance Act

Broadcasting stations

Buildings used for broadcasting business with the total floor area of 3,000 ㎡ or more pursuant to Article 2 (2) the Broadcasting Law

Distribution facilities

Buildings used as large stores of which the total floor area of the parts is 3,000 ㎡ or more pursuant to the Distribution Industry Development Act; buildings used as an agricultural and fishery product wholesale market pursuant to the Act on Distribution and Price Stabilization of Agricultural and Fishery Products and a private agricultural and fishery product wholesale market with the total floor area of 3,000 ㎡ or more

Specific Buildings

Multi-purpose facilities

A. Game providing business pursuant to Article 2 (6) of the Game Industry Promotion Act

B. Business of providing Internet computer game facilities pursuant to Article 2 (7) of the Game Industry Promotion Act

C. Karaoke business pursuant to Article 2 (13) of the Music Industry Promotion Act

D. Rest restaurant business pursuant to Article 21 (8) (a) of the Enforcement Decree of the Food Sanitation Act

E. General restaurant business pursuant to Article 21 (8) (b) of the Enforcement Decree of Food Sanitation Act

F. Karaoke bar business pursuant to Article 21 (8) (c) of the Enforcement Decree of Food Sanitation Act

G. Entertainment bar business pursuant to Article 21 (8) (d) of the Enforcement Decree of Food Sanitation Act

H. Shared kitchen business pursuant to Article 21 (9) of the Enforcement Decree of the Food Sanitation Act

Multi-purpose facilities

Buildings of which the total floor area of the parts used for one or more of the following business activities is 2,000 ㎡ or more

School

Schools pursuant to Article 2 of the Elementary and Secondary Education Act and the Higher Education Act with the total floor area of 3,000 ㎡ or more

Apartment

Apartment buildings of 16 stories or more and annex buildings pursuant to Article 3 (1) of the Enforcement Decree of the Housing Act (including apartment buildings of 15 stories or less in the same complex under the management by the same management authority)

Factory

Factory registered pursuant to Article 16 (1) of the Industrial Cluster Development and Factory Establishment Act with the total floor area of 3,000 ㎡ or more

Building of 11 stories or more

Buildings of 11 stories or more excluding basements and parking garage

Public bath business

Public bath business pursuant to the Article 2 (1) 3 of the Public Health Control Act with the total floor area of 2,000 ㎡ or more

Movie theaters

Buildings of which the total floor area of the parts used as a movie theater pursuant to Article 2 (10) of the Promotion of the Motion Pictures and Video Products Act is 2,000 ㎡ or more

Stations and station facilities

Facilities of which the total floor area of the parts used as stations and station facilities pursuant to Article 2 (3) (a) of the Urban Railroad Act is 3,000 ㎡ or more

Indoor shooting range

Buildings used as an indoor shooting range pursuant to Article 5 of the Act on Safety Management of Shooting and Shooting Ranges

SPECIAL INSURED FIRE INSURANCE

(SPECIAL CLAUSE FOR BODY INJURY AND PROPERTY DAMAGE LIABILITIES)

A specific building should sign in the 'Special Insured Fire Insurance' attaching special terms and conditions that cover the casualties and property damages due to fire of the specific building.

Special insured fire insurance

As a compulsory insurance applied to specific buildings, it is an insurance that compensates the loss when damage occurs in other people's body and property in case of fire as well as the property damages of the owner when encountering a unexpected fire accident.
Special Provisions of Personal Compensation for Damages and Special Provisions of Fire Assurance Tier Collision are applied to it. Its benefits are paid up to KRW 150 million for disability and death, up to KRW 30 million for injuries, and up to KRW 1 billion for other people's property damages due to fire for each accident.

What policyholders should know

You should read the terms and conditions carefully when entering and renewing the insurance contract. To compensate the loss sufficiently, you should sign up the insurance with price corresponding to market price. In case of a factory composed of several buildings, the insurance premium may be reduced by classifying the accommodative property according to the structural grade or work process.

Insurance contract for munitions companies and important national facilities

The insurance contract for munitions companies and important national facilities that require security are handled exclusively by KFPA according to 'Special Agreement on General Insurance Joint Underwriting'.

Joint underwriting of Special Insured Fire Insurance for specific buildings

If a general insurance company finds it to underwrite Special Insured Fire Insurance independently, it can commission KFPA to jointly underwrite one.

An owner of a specific should sign up for Special Insured Fire Insurance that compensates the loss when damage occurs in other people's body and property in case of fire as well as the property damages of the owner when encountering a unexpected fire accident.

The publicly used establishments, accommodations, and apartments pursuant to the Act on the Indemnification for Fire-caused Loss and the Purchase of Insurance Policies that are covered by Special Insured Fire Insurance are regarded to be covered by obligatory insurance pursuant to Article 4 (2) of the Special Act on the Safety Control of Publicly Used Establishments and Article 76 (5) 2 of the Framework Act on the Management of Disasters and Safety.
Therefore, the policyholder of the Special Insured Fire Insurance do not have to purchase a separate fire compensation insurance for publicly used establishments or disaster compensation insurance.

RISK MANAGEMENT SERVICE

KFPA carries out the 'Assessment for Rating the Premium Discount Rate.'

Premium discounts for specific buildings

Premium discounts are available in accordance with the results of KFPA fire safety inspections on specific buildings. After the fire risk index is calculated according to the inspection, the safety grade adjustment index is derived and multiplied with standard discount rate of specific building, which leads benefits of premium discount.

Standard discount rate for specific buildings

By business	Discount rate
Tourism/accommodation business, accommodation business, rest restaurants , general restaurants, karaoke bars, entertainment bars, karaoke rooms, game providers (including PC cafes), public bathhouse, shooting range	10%
Schools, large stores, agriculture/fishery product wholesale markets	15%
Performance halls, movie theaters	20%
State-run buildings, public buildings, railways, buildings of 11 stories or more, broadcasting stations, factories	25%
Private academies, hospitals, apartments	30%

Premium discounts by conditions of fire protection system

Premium discount up to 60 % is granted to the building and its movable property equipped with the fire protection system certified by KFPA inspections according to the Fire Protection System Regulations.

Discount rate for fire protection system

Type of fire protection system	Discount rate	Type of fire protection system	Discount rate
Fire extinguisher	3%	Sprinkler	15 ~ 60%
Outdoor hydrant	8 ~ 15%	Foam	5 ~ 18%
Indoor hydrant	5 ~ 10%	Carbon dioxide	
Fire engine	15%	Halon 1301	10 ~ 20%
Auto fire detection	5 ~ 10%	Halogen compound and inert gas	
Auto fire alert	5%		

Fire risk index

KFPA identifies the fire risk index of a building by evaluating the degree of its fire risks.
This index has seven grades according to the index values, with reflected elements including the size of the building, characteristics of its purpose of use, risk factors such as inflammables, management state, fire compartment, and firefighting facilities.

Premium discounts for highly protected risks

The factories which are insured only against fire with the total insured amount of more than KRW 2 billion per a policy with the average loss ratio of 68% or less for the past 5 years will get the premium discount of up to 25%, which is defined in the Discount Rate of Excellent Buildings, according to the on-site discount rate survey by KFPA.
Provided, the excellent discount rate for specific buildings shall not exceed 10%. Up to 35% of the discount rate may be granted including the discount rate for specific buildings.

Field investigation for discount rates on Non-specific buildings

KFPA conducts the field investigation on discount rates for firefighting facilities and excellent buildings of non-specific buildings upon requests of general insurance companies and notifies the result.

Safety Grade Adjustment Factor

Grade S	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Not assessed
1.40	1.30	1.15	1.00	0.85	0.70	0.60

*** Example of final discount rates applied to specific buildings**
If KFPA investigates a building of 11 stories or more and evaluates its fire risk index as Grade S, the adjustment factor for discount rates is set at 1.40. Therefore, the discount rate is confirmed at “specific building discount rate (25%) x Grade S (1.40) = 35%”

SUPPORT FOR UNDERWRITING FOR SPECIFIC BUILDINGS

*Underwriting
A risk assessment activity performed by an insurance company in order to decide which insurance policy is suited for the applicant.

Supporting insurance companies to match appropriate insurance policies with specific buildings

KFPA performs safety inspections on specific buildings not only to prevent accidents and reduce loss, but also provide general insurance companies with the following information found in the safety inspection report that is necessary for matching an appropriate insurance policy.

Materials provided to sign up for appropriate insurance

- Rate discount
- General information on the building
- Type and conditionof potential risks
- Status of firefighting equipment
- Calculating fire MPL/EML
- Fire risk level index
- Natural disaster and lightning risk index
- GIS-based underwriting materials (UCIS)

Provision of underwriting information and insurace-related content

UCIS 4.0

- A comprehensive information system that provides underwriting, risk management, and marketing materials for operations and sales teams in our member companies.
- Services for member companies to be provided through a platform service that integrates various contents in the near future.

- UW info system
- Insurance valuation
- Special building marketing report
- Fire insurance underwriting reference
- Chemicals information
- Tech & liability insurance risk management
- Legal factory ledger
- Special building joint underwriting

FIRE SAFETY EXCELLENT BUILDING RECOGNITION PROGRAM

KFPA are operating the Fire Safety Excellent Building Recognition Program.

Introduction of the program

As a result of its safety inspection for specific buildings, KFPA selects the buildings that show strong will to safe management with superior management conditions related to fire explosion risks, fire protection facilities, process facilities, and fire extinguishing facilities as Fire Safety Excellent Buildings through the review of risk management experts. The selected excellent buildings are provided with a certificate and a recognition plaque that can be attached to the building. They contribute to the formation of a culture of safety by informing their differentiated safety both internally and externally compared to other business sites in the same industry.

KFPA has operated Fire Safety Excellent Building Recognition Program since 2011 to inspire responsibility of inspectors and encourage specific building managers to manage the buildings thoroughly.

Recognition procedure of an excellent building

Step 1	Recommendation of excellent buildings (by the department in charge of inspection) * The department that conducted inspection recommends buildings with excellence in fire risks and safety management
Step 2	Application of excellent building recognition review (by the personnel of the specific building) * Apply for recognition review by personnel of specific building with excellent fire risk management
Step 3	Review of suitability for excellent building recognition standard (by the General Inspection Department) * The fire risk grade checked through the inspection
Step 4	Review by the Accreditation Committee for Excellent Buildings (by external members, such as professors, and internal members) * Comprehensive review of the safety management will, fire prevention facilities in the building, process risk management, fire extinguishing facilities management, fire history, etc.
Step 5	Final recognition of excellent building (notification of the winners, delivery of the certificate/recognition plaque)

Benefits

- Priority support upon the request for technical support to improve the fire safety and reduce insurance premium
- Provision of technical materials and publications of KFPA and FILK and offering 10% discount for books published by KFPA
- Free training for disaster prevention technology conducted by FILK (for one person during the given period)
- Prior invitation to various seminars organized by KFPA
- Building posted on the website and publications of KFPA and promoted through media


화재보험협회

KCFS 2022 - 21

화재안전 우수건물 인정패

국립과천과학관
Gwacheon National Science Museum
경기 과천시 상하벌로 110
110, Sanghabeol-ro, Gwacheon-si, Gyeonggi-do

2022년 5월 1일부터 2024년 4월 30일까지
From May 1st, 2022 to April 30th, 2024

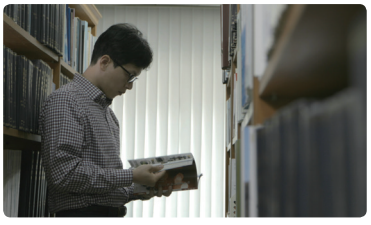
위 건물은 한국화재보험협회의 안전점검 결과에 따라 화재안전 우수건물임을 인정합니다.
The organization above is hereby acknowledged as Excellent Safety Management Building by KFPA's fire safety inspection.

2022년 5월 1일
May 1st, 2022

한국화재보험협회
Korean Fire Protection Association
이사장 강영구
President, Young-Goo Kang

RESEARCH, DEVELOPMENT AND DISSEMINATION OF RISK MANAGEMENT

KFPA has been researching, developing, and distributing risk management measures for each industry and business, as well as researching methods of assessment and consulting general insurance companies for sensible underwriting researching, analyzing disaster cases and statistics, and setting risk management standards on the international level, all by building the information database system and research system dedicated to risk management.



Develops and distributes risk management techniques

KFPA has developed and distributed techniques on general insurance risk management, publishing *Korea Fire Safety Standard** and *Tech Insurance Risk Management* using its accumulated experiences and information and developing the KFPA CAP program for analyzing EML of fire/explosion accidents at chemical/oil-chemical factories.

Provision of information service

KFPA has created DB through investigation and analysis of accident cases, collection and classification of advanced risk management technology information to provide information service as well as publish and distribute publications.

Collaboration with risk management organizations and standard-related tasks

KFPA secures key safety-related laws and standards in Korea and abroad by exchanging information with domestic and overseas safety management organizations. For example, it has signed a technology agreement with the NFPA and an MOU for research collaboration with the National Disaster Management Institute. It has made efforts to establish database specializing in risk management, which includes the publication of Korean versions of leading overseas disaster prevention standards, conducting investigations and analyses of risk management standards.

Research and development of risk management techniques

- Method for evaluation of Fire Risk Index (KFRI) of a building and Maximum Expected Damage (MPL/EML · KFPA CAP (Consequence Analysis Program) program
- Technology insurance (construction, assembly, machinery) risk management
- Simulated and probabilistic building fire risk analysis
- Process risk assessment
- Underwriting survey techniques
- Natural disaster risk assessment techniques
- Development of a thematic map on natural disaster risks
- RBI(Risk Based Inspection) Point Inspection by industry

Disaster case studies and statistics

- Fire investigation and statistical analysis
- Buildup of fire case database
- Case analysis of natural disaster accidents
- Case analysis of lightning accidents
- Case analysis of collapse accidents

Tasks related to risk management standards

- Studying and analyzing domestic and overseas safety codes and standards
- Establishment and revision of risk management standards meeting the international level
- Signing an agreement for mutual cooperation with NFPA
- Participation in NFPA Code Technical Committee
- Securing major safety-related laws and standards at home and abroad
- Translating major codes and standards into Korean
- Publication of NFPA Codes, SPFE Fire Protection Handbook

RESEARCH ON NATURAL AND SOCIAL DISASTER

KFPA researches and develops risk management methods for various natural disasters.

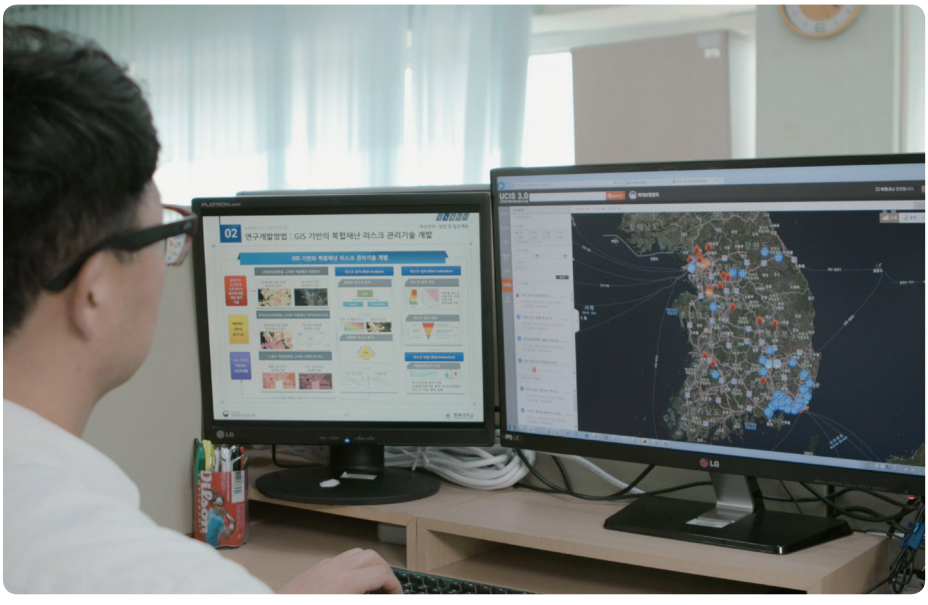
Research on natural disasters

KFPA has developed the natural disaster map covering the whole Korean territory to provide content related to natural disaster risk management and underwriting that general insurance companies need.

UCIS (ucis.kfpa.or.kr) reports natural disaster risk information following the business location.

Research on social disasters

KFPA researches and develops risk management methods for various social disasters, such as fire, explosion, collapse, and environmental pollution accidents, conducting preceding researches to propose the standards for underwriting for special and new risks in the future.



2. FLOOD HAZARDS

DISASTER PREVENTION CONSULTING SERVICE

KFPA is performing specialized risk management to prevent personal injury and property damages caused by fire and explosion.
The disaster prevention consulting service provided by the professionals with national technology certificates who majored in related areas examines the purpose of use of the building and the type of special risks in each process of the business to suggest the measures for disaster prevention.

Performance records

Samsung Electronics Giheung/Hwaseong Plant, 4 business sites of Hyundai Motor Company, SK Innovation, SK E&S, SK Global Chemical, SK Energy, SK Incheon Petrochemical Co., Ltd, 17 business sites of Hyundai Mobis, Sampyo Cement Co., Ltd, Hyundai Gye-dong Office, 3 business sites of Songwon Industrial Co., Ltd, Hyosung Eon-yang/Ulsan Plant, Samsung Fine Chemical Co., Ltd, Kolon Gumi Plant, Dong Suh Food Co., LTD, Hyundai Card, 2 business sites of LG Display, 2 business sites of Hyosung Advanced Materials, etc.

Public institutions, such as Korea Nuclear Energy Research Institute, Korea Southern Plant Co., Ltd, Nuclear Power Plants in Uljin, Kori, Wolseong, and Yeonggwang, Incheon International Terminal, Taekwondowon, National Assembly

Domestic traditional markets, Kumho Resort, Grain Warehouse, etc.

Overview

Prevention of human casualties and property damages is highly critical to financial stabilization, market competitiveness, and constant growth of companies. Founded in 1973 to prevent human casualties and property damages from fire accidents as the legitimate disaster prevention institution, KFPA finds out potential risk factors in buildings and corporate activities based on our accumulated technologies and suggest rational policy directions and measures so that companies can prepare for the risk of disasters including fire more effectively.

Status of qualified technicians

Category	Ph. D in engineering	Professional engineer	Manager of fire prevention system	Engineer	Others
Number	20	7	6	447 (20 types)	8 CPCUs, 4 claim adjusters, 6 PEs, 19 ARMs, 101 CFEIs , 4 CFIs, 6 corporate disaster managers (substitutes), etc.

Note)
CPCU: Chartered Property Casualty Underwriter
PE: Professional Engineer
ARM: Associate in Risk Management
CFEI: Certified Fire and Explosion Investigator
CFI: Certified Fire Investigator

Fire Risk Diagnosis

Identifying the general risk factors for potential fire, explosion, etc within the business site, and presenting a comprehensive risk improvement plan for solution.

Reliability Evaluation for Disaster Prevention System

Presenting problem and improvement plan for currently operating fire extinguishing facilities, and improving safety and reducing risk by verifying operation performance

Life Safety Consulting

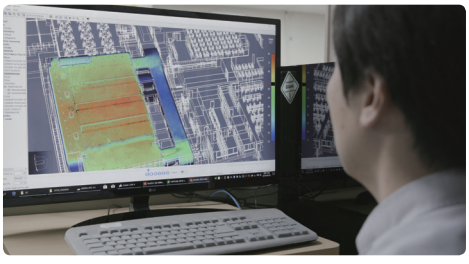
Conduct fire and evacuation simulation by composing of fire scenario based on cases meeting the spatial hazard characteristics and use of building. Propose disaster prevention strategies considering reliability and economic feasibility of facility in the aspect of disaster prevention regulations and fire protection engineering after analyzing and evaluating fire condition and people safety.

Review of Design Drawing and Safety Diagnosis before Completion

Proposing the best improvement plan by precisely reviewing the design drawing of new buildings regarding to problems of disaster prevention facilities that can occur after construction. Finally confirming and verifying before construction to secure performance of disaster prevention facilities based on proper construction according to related regulations.

Other Disaster Prevention Consulting

Conducting various disaster prevention consulting required in business sites, such as risk assessment, establishment of disaster reduction activity plan, process safety management (PSM) consulting, structure safety evaluation, natural disaster risk assessment, self-inspection of fire facilities, etc. and proposing optimal alternatives required for improvement of safety.



Status of equipment

Equipment for analysis

Infrared thermal camera system, Ultrasonic thickness gauge, Ultrasonic leakage detector, Infrared rays thermometer, Liquefied gas level meter, Explosion blackout strain gauge, Dust monitor , Ultrasonic thickness gauge, Leakage electric gauge, Water supply pressure meter, Wind velocity/volume differential pressure gauge, Inflammable gas detector, Heat detector / tester, Audio gauge, Circuit tester, Insulation resistance gauge, Illuminometer, Distribution line tester, Magnet particle testing (MT), Ultrasonic testing (UT), Vibration meter, and more.

Equipment for examination

Cone calorimeter, flammability tester, ignition tester, flame spread tester, gas toxicity tester, combustion gas analyzer, ignition point tester, ignition point gauge, detector operation measuring device, tracking-resistant tester, flame-resistant wire performance tester, heat current tester, electricity safety tester, sprinkler head gauge and controller, fireproof heater, thermal conduit tester, and more.

PUBLIC RELATIONS INITIATIVE ON DISASTER PREVENTION

KFPA performs various promotion activities to improve safety culture in our society and protect lives and property of citizens through disaster prevention.

Fire Safety Education for the public

KFPA provides free Fire Safety Education for the public so as to raise awareness over fire safety and establish safety culture in our society.

Theme	Causes of fire, prevention know-how, escape, evacuation, etc.
Method	Theoretical and practical training by direct visitation of an expert instructor
Eligibility	Children and youth, vulnerable class to disasters
No. of educatees	20 persons or more
Hours	More or less 1 hour (adjustable on demand)
Application	Online application via the KFPA website (www.kfpa.or.kr)

Promotions on social media

- KFPA is preventing loss of life and property and contributing to the settlement of a culture of safety through fire prevention activities on social media.
- Numerous videos on children's disaster safety education and fire risks are available for improving safety culture.

Promotion through the mass media

KFPA is preventing loss of life and property and contributing to the settlement of a culture of safety through fire prevention activities on mass media.

Fire Prevention Event for Children

Children learns basic knowledge on fire safety through study and evaluation and enjoy an opportunity to practice the knowledge through safety experiences. This gets them lead a safety life and raise fire safety awareness in their households as well.

Fire Safety Volunteer Award

Exemplary fire officers who have dedicated to protect lives and property of people through fire prevention and control activities are given commendation awards to boost the morale of the fire officers and contribute to establishment of welfare society. Initiated in 1974, it is a national event in the firefighting field.

Disaster Prevention Prize Contest

Increase awareness of national disaster prevention consciousness through poster and video prize contest.

Domestic/ International Risk Management Seminar

- KFPA held the International Seminar on Fire Cause Analysis in March 2010 to contribute to the advancement of the domestic fire cause analysis field through dissemination of the system, technique and cases of fire cause analysis.
- KFPA held the International Seminar on Fire Safety Education in November 2011 for setting the future directions and visions for fire safety education.
- KFPA held the Seminar for the Development of Natural Disaster Insurance Celebrating the 40th Anniversary of the KFPA in October 2013
- KFPA held the Seminar for the Development of Property Insurance Risk Management in May 2017
- KFPA held the Seminar for the Development of IT Technology and Changes in the Insurance Industry in October 2017
- KFPA held the Seminar for Recurring Large-Scale Fire and Strengthening the Social Stability Network in May 2018
- KFPA held the Seminar for ESS Fire Safety Management and Countermeasures in April 2019

Publishing and distributing publications

KFPA has published and distributed the *Disaster Prevention and Insurance* (quarterly), fire safety manual series, magnet stickers/leaflets/IVR message for fire prevention, and PPT teaching tools for public fire safety education.

FIRE INSURERS LABORATORIES OF KOREA



The Fire Insurers Laboratories of Korea (FILK), an affiliate institution of the Korean Fire Protection Association, is a professional testing and research agency specializing in fire. It contributes to improving fire inspection technologies, scientification of general insurance, and strengthening national disaster prevention capability.

History of Fire Insurers Laboratories of Korea

1986~1999

1986
- Establishment of Fire Insurers Laboratories of Korea (FILK)

1988
- Designated as a testing agency for type approval of ships and goods for ships (Ministry of Oceans and Fisheries)

1991
- Concluded an MOU with the Japan Test Center for Construction Materials (JTCCM)
- Designated as a quality test agency in architecture (Seoul Regional Construction and Management Administration)

1992
- Designated as a ship classification testing institution of UK (LR), Japan (NK), France (BV), Norway (DNV), USA (ABS) and Germany (GL)

1994
- Concluded an MOU with FMRC, USA

1995
- Designated as the KOLAS (Korean Agency for Technology and Standards)
- Designated as the testing agency for fire prevention door and sound-arrest structure (Ministry of Construction and Transportation)

1997
- Designated as a research institution in the science and technology field (Ministry of Science and Technology)
- Designated as an education/training institution (Ministry of Employment and Labor)

1998
- Designated as ISO/TC92 (fire safety) managing institution (Korean Agency for Technology and Standards)

1999
- Designated as a testing institution for European Conformity Certification (CE mark) (Lloyd's Register, UK)

2001~2010

2001
- Designated as a supervising research institution for industry-university-institute consortium project (Small & Medium Business Administration)
- Designated as the testing institution for KS mark certification (Korean Agency for Technology and Standards)

2002
- Designated as the testing institution for USCG format approval (United States Coast Guard)

2003
- Concluded an MOU with Shanghai Fire Research Institute (Ministry of Public Security of China)
- Designated as the testing institution for Russian Maritime Register of Shipping (RMRS)format approval (Russian Maritime Register)

2004
- Designated as the ISO/TC21/SC11 (smoke/heat prevention system) managing institution (Korean Agency for Technology and Standards)

2005
- Designated as the ISO/TC61/SC4 (plastic combustion behavior) managing institution (Korean Agency for Technology and Standards)

2006
- Designated as the testing institution for high-efficiency energy appliances (highly airtight/insulated window/door) (Ministry of Trade, Industry and Energy)

2007
- Recognized with its special training course for fire officers (National Emergency Management Agency)
- Won the Grand Prize in the area of fire prevention at Korea Consulting Award 2007 (Kukmin Ilbo, Sogang University)

2008
- Designated as the supervising institution for research equipment sharing cluster (Small and Medium Business Administration)
- Concluded an MOU for fire investigation with National Forensic Service

2009
- Designated as the cooperative institution for developing fire safety and architecture acoustics standards (Korean Agency for Technology and Standards)
- Designated as the high-efficiency energy appliances (highly airtight/insulating door) testing institution (Ministry of Knowledge Economy)
- Designated as a testing institution for Korean Register (KR)

2010
- Concluded an MOU with Seoul Firefighting School
- Concluded an MOU with Korean National Police Agency

2011~

2011
- Designated as the Center for Product Accident Investigation (Korean Agency for Technology and Standards)
- Concluded an MOU for fire tests conducted for the certification of solar modules with TUV Korea

2015
- Recognized as a photovoltaic module fire testing agency (TUV Rheinland)

2016
- Certified as a performance verification agency for nuclear power plants

2017
- Designated as a automobile fuel tank and battery pack fire resistance test institution (Vehicle Certification Agency, UK)

2018
- Completion of Fire Environment Testing Building (expansion of heat transmission coefficient testing machine)

2020
- Electric vehicle battery pack and fuel tank fire resistance test institution(TUV SUD)

2021
- Designated as a type approval testing institution for automatic fire extinguishing system for unmanned engine rooms

2022
- Establishment of Eco-friendly Energy Demonstration Project Team(Eco-energy R&D Project Group) in Disaster Safety Research Center

TASKS OF FIRE INSURERS LABORATORIES OF KOREA

The Fire Insurers Laboratories of Korea (FILK), an affiliate institution of KFPA, taps into a panoply of professionals and nearly 400 types of cutting-edge testing equipment for testing, research, and quality verification to contribute to scientification of KFPA's fire safety investigation and general insurance as well as reinforcement of national disaster prevention capability.

Major services

· Test recognized by the national certification body (KOLAS)
· Research using the latest testing and laboratory facilities as a science and technology research institute
· Development of standards as an Co-operating Organization for Standards Development (COSD)
· Provision of Disaster Prevention Technology Training as a training organization designated by the Ministry of Employment and Labor & National Fire Agency
· Investigation of fire causes for prevention of insurance crime and scientification of insurance industry
· FILK quality certification to provide outstanding firefighting products
· Promotion of large-scaled national R&D
· Eco-friendly and carbon-neutral related test research

Purpose of foundation

· Quality improvement of fire prevention products
· Contribute to reducing loss through scientification in insurance industry
· Contribute to improvement of national fire protection technology

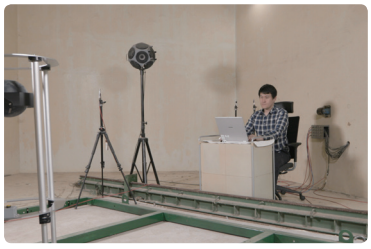
COSD
표준개발협력기관
Co-operating Organization for Standards Development

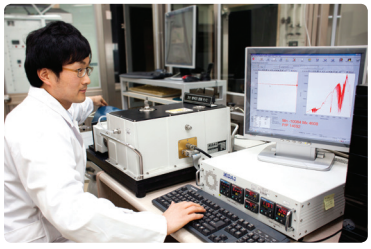
Statutory basis for foundation

· Article 15 (3) of the Act on the Indemnification for Fire-caused Loss and the Purchase of Insurance Policies (Act No. 2482, promulgated in Feb. 1973): "Survey, research and education on materials concerning fire prevention and fire extinguishing facilities"
· "Instruction to reinforce fire protection activities with foundation of test and research institute" (Prime Minister's Decree in Mar. 1978)
· Instruction to found and operate Fire Insurers Laboratories of Korea under Korean Fire Protection Association (The Board of Audit and Inspection of Korea in Jul. 1980)
· Approval on foundation of FILK (Ministry of Economy and Finance in Dec. 1980)

FIRE PROTECTION TECHNOLOGY PROJECTS

National projects for fire protection





Government-lead national research projects

- Research on national standardization of fire safety and acoustics (Korean Agency for Technology and Standards)
- National standards and technology enhancement project (Ministry of Trade, Industry and Energy)
- Fire safety and 119 emergency rescue technology development project (Ministry of the Interior and Safety)
- Urban construction research project (Ministry of Land, Infrastructure and Transport)
- Development of localized technology for core equipment in the oceans and fishery industry (Ministry of Oceans and Fisheries)
- Development of automatic fire extinguishing system for ESS against a fire (National Fire Agency)

Private and industry technology projects

Execution of developing new products and technologies of private and industry sector

- Building test bed for main control room and fire experiment of nuclear power plants
- Evaluation and improvement of sandwich panel's actual scale fire safety evaluation
- Evaluation of bed mattress's actual scale fire safety evaluation
- Fire resistance performance evaluation of automobile fuel tank and electric battery pack
- Development and quality management of fire door and elevator door
- Insulation performance evaluation of fire door and windows, etc.
- Performance evaluation of automatic fire extinguishing devices
- Performance evaluation of fire resistance for batteries

In-company projects

Performing in-company projects for development of new products and improvement in disaster prevention technology

- Research on improvement in fire detection of rack-type distribution warehouses and standard of extinguishing facility installation
- Checking the operation status and seeking improvement plan of basic sprinkler facility in publicly used establishments
- Research on response time index of heat sensor using Plunge Tunnel
- Research on reduction of fire risk following cooling frame installation for spring bed mattress

Strengthening its role in the insurance industry and support scientification through research

- Support for advanced technology insurance or emerging risk management related to renewable energy (sunlight, wind power, ESS, etc.) and new technologies
- Risk management supports with empirical tests and simulations under fire test demand surveys of member companies
- Basic research (electric vehicle fire, etc.) and strengthening the capabilities of risk management organizations

TESTING SERVICE TO INTERNATIONAL FIRE CODES AND STANDARDS

Major services

- Fire extinguisher and foam agents, fire detection and alarm products, fire suppression components and systems

- Building materials, building structure subsidiary materials, fire prevention facilities of buildings, construction materials, construction environment

- Highly air tight thermal insulation windows and doors, items for automobiles, items for ships, etc.

- Electric vehicle, ESS, wind power generation safety facility etc.

Effects of testing service

Technology Development	Quality and performance evaluation of new products and materials
Facility Maintenance	Evaluating satisfaction of legal requirement or required performance sustainment of installed products
Product Inspection	Evaluating products to determine whether they satisfy KS, UL and miscellaneous domestic and foreign standards
Miscellaneous	Evaluating the performance of firefighting products

INTERNATIONALLY DESIGNATED TESTING AGENCY

FILK provides a proxy test service recognized by domestic and overseas accredited organizations.

Domestic

Formal Approval Testing Organization for Shipping Goods

- Conduct formal approval test according to the Ship Safety Act and Enforcement Rules and the Standard for Formal Approval Test and Certification of Ships and Shipping Goods for shipping goods specified by the Minister of Oceans and Fisheries.
- 49 items including fire extinguisher

Quality Inspection Agency for Construction Engineering Business

- Conduct quality inspection as a construction engineering service agency pursuant to Article 60 of the Construction Technology Promotion Act, Article 97 of the Concurrent Decree, and the Regulations on Quality Management of Construction
- Specialized fields: construction, specialty (aggregate, ready mix concrete, steel)

Performance Verification Organization of Nuclear Power

- Conduct tests as a nuclear performance verification organization managed by the Korea Foundation of Nuclear Safety in accordance with the Nuclear Safety Act
- Certification field: flame test

Testing Organization of Efficient Apparatus's Consumption Effieicny Grade (Window Set) and Highly Efficient Apparatus Certification (Door Set)

- Conduct testing task for items required for energy efficiency management in accordance with the Energy Use Rationalization Act
- Heat permeation resistance and airtightness test for window set and door set

Type Approval Testing Institution for Fishing Vessels Accredited by Ministry of Oceans and Fisheries in 2021

Overseas

International Ship Classification Testing Organization

- Designated as a testing organization in accordance with fire test standard of International Maritime Organization, conducts fire safety performance test of shipping goods including shipping bulkheads, deck assemblies, fire doors, etc exported by domestic companies.
- UK (LR), Japan (NK), USA (ABS), France (BV), Germany (GL), Norway (DNV), Russia (RMRS)

Formal Approval Testing Organization designated by the United States Coast Guard(USCG)

- Conduct post management task for performance test and quality management system of manufacturer for shipping goods from the United States Coast Guard in accordance with US Federal Regulations.
- Designated fields: FTP Code Part 1, 2, 3, 4, 5

Accreditation Organization for Refractory Testing Equipment of TUV Rheinland

- Registered as refractory testing equipment for vehicle fuel tank and electric vehicle battery, conduct refractory testing in accordance with No.34 and No.100 of the UNECE Regulation

COMPREHENSIVE TRAINING COURSE

FILK provides one of the most comprehensive ranges of fire safety training courses in Korea. FILK currently offers over 12 different training courses covering fire safety management, fire safety inspection practice, fire and explosion investigation practice, and fire simulation, and others in addition to organizing seminars and specialist training events tailored to specific company requirements. Run by fully qualified and experienced fire safety professionals, courses can be held in our newly built training-oriented facility at FILK. Training initiative is well recognized by industry, commerce, government and all relevant professional bodies in Korea.

Courses

Fire protection system | Special course | Industry Specialization Field | Disaster safety management course | Customized course

Trainees

Fire protection managers, fire safety managers, risk managers, designers and contractors

Training facilities

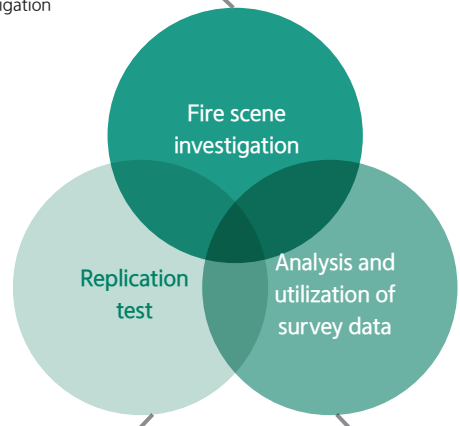
Training center

Large lecture rooms, medium lecture rooms, small lecture rooms, computer laboratories, sprinkler facility and foam extinguishing facility practice rooms, gas system practice room, alarm practice room, ancillary room and living room smoke control facility practice room, extinguisher practice facilities, various training equipment, etc.

FIRE CAUSE INVESTIGATION

FILK conducts scientific fire scene investigations and fire appraisals of manufactured goods based on fire-related technology accumulated over the years. Causes of fires are scientifically and empirically identified through fire replication studies using researcher facilities to prevent insurance crimes and take the lead in the scientification of the insurance industry.

- Scientific field investigation



- Empirical investigation of fire causes
- Identification of fire risks of igniting equipment
- Identification of potential risks and prevention measures

- Analysis of proof data by experiments, documentary records, etc.
- Utilized for inspections and PR activities to prevent fire

QUALITY CERTIFICATION SERVICE

FILK's quality certification service

This service is conducted by FILK, an affiliate institution of KFPA that implements activities to prevent casualties and property damages caused by fire, to guarantee the quality of outstanding firefighting products. The FILK certification is granted to a product related to fire and lifesaving considering its quality control system and performance according to the FILK Standards that meets the international level.

Effects of FILK Certification

- Promote sales by securing product credibility and strengthen competitiveness
- Improve technology and quality

- Discounts on fire insurance premium rate on firefighting facility (up to 60%)
- Improve safety level by using world-class products to reduce human casualties and property damages due to fire accidents
- Improve values of buildings by securing safety against fire accidents

- Contribute to wellbeing of life of the public by preventing disasters and inducing reduction in losses through support for manufacturing and distributing disaster prevention and safety products
- Provide incentives over the usage of safety certified products as a way to give varying degrees to insurance premium rates so as to manage risks in an organized fashion

- Promote the national competitiveness by improving public safety and producing world-class quality products
- Realize safe society from fire risks by promoting the use of excellent safety-wise products

Filk Certification Products

Classification	Products
Construction Structure & Material	Building Structure Subsidiary Material, Fireproof Filling Structure, Interior Material for Construction, etc.
Fire Extinguisher Instrument & Automatic Fire Extinguishing Equipment	Fire Extinguisher, Foaming Extinguishing Chemical, Automatic Expansion Extinguishing Equipment, Simple Extinguishing Equipment, etc
Fire Extinguishing Machine	Sprinkler Facility, Fire Hydrant, Gas System Extinguishing Facility, Fire Extinguishing Pressure Monitoring Control Device, etc
Alarm Facility	Detector, Receiver, Transmitter, Repeater, Visual Alarm Device, Video Fire Detection System, etc
Fire Protection Facility	Fire Door & Gaskets for Fire Door, Fire Shutters, Fire Protection & Smoke Dampers, etc
Lifesaving Equipment	Emergency Evaluation Mask for Fire
Others	Fire Protection & Safety related Products, Flameproof Goods, etc

FILK Certification Procedure

01. Application
02. Document Screening
03. Contract
04. Factory Inspection
05. Test
06. Approval
07. Follow-Up Service

Fire Premium Discount Rate for FILK Certification Products

Certified Products	Discount Rate	Main Items
Fire extinguisher	3%	Hydrant
Outdoor hydrant facility	8 - 15%	Hose, nozzle
Indoor hydrant facility	5 - 10%	Hose, nozzle
Fire engine	15%	Fire pump
Auto fire detection facility	5 - 10%	Detector, receiver, transmitter, relay station, audio system
Central monitoring system	5%	Central monitoring system for electricity facilities
Auto fire alert facility	5%	Auto fire alert facility
Sprinkler facility	15~60%	Head, alert valve
Firefighting foam facility	5 -18%	Firefighting foam chemicals, firefighting foam blender, firefighting foam discharger
Carbon dioxide firefighting facility	10 - 20%	Starting device, discharging device, menu valve, check valve
Halon 1301 firefighting facility, halogen compound and inert gas extinguishing facility	10 - 20%	Starting device, discharging device, menu valve, check valve
Flame-retardantinteriormaterials-forbuildings	5%	Interior ceiling board for buildings

* Source: Firefighting Facility Regulation, Fire Insurance Premium Rate published by Korea Insurance Development Institute

KFPA MEMBER COMPANIES

meritz	www.merizfire.com
Hanwha Non-Life Insurance	www.hwgeneralins.com
LOTTE INSURANCE	www.lotteins.co.kr
MG Non-Life Insurance	www.mggeneralins.com
Heungkuk Fire & Marine Insurance	www.heungkukfire.co.kr
Samsung Fire & Marine Insurance	www.samsungfire.com
Hyundai Marine & Fire Insurance	www.hi.co.kr
KB Insurance	www.kbinsure.co.kr
DB Insurance	www.idbins.com
Hana Insurance	www.hanainsure.co.kr
Shinhan EZ General Insurance	www.shinhanez.co.kr
NongHyup Property & Casualty Insurance Co., Ltd	www.nhfire.co.kr

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