

Safety Board



A Product and Service Provider Prioritizing Life and Environmental Values



SHINWOONG-USA Safety Board is engineered for superior fire resistance, eco-friendly non-toxicity, water and corrosion resistance, with exceptional functionality and customizable design to meet every construction need. They are fully non-combustible, making them ideal for advanced fire protection. They also contain no harmful substances such as formaldehyde or asbestos, ensuring zero toxic gas emissions during fires. Our Safety Boards are cost-effective, lightweight, and easy to install, reducing both labor and structural expenses. They offer excellent constructability, can be cut easily like gypsum board, and support both dry and wet construction methods.



| Physical Properties | | | | |
|---|---------------------------|--|-----------------------|--------------|
| Material Composition | Magnesium Oxide | Thickness | Nominal 1/4" (6mm) | |
| Weight | 48.5lb | Apparent Density | 1.1 g/cm ³ | |
| Available Sizes | 48×96 in (1220×2440mm) | Variation in length due to water absorption | 0.09 % | |
| Description | Specimen 1 | Specimen 2 | Specimen 3 | Requirements |
| Time of continuous flaming (sec.) | 0 | 0 | 0 | <10 |
| Temperature rise of furnace above initial furnace temperature (° C) | 24 | 16 | 23 | <50 |
| Temperature rise of sample above initial furnace temperature (° C) | 0 | 0 | 0 | <50 |
| Classification | Non-Combustible | Non-Combustible | Non-Combustible | - |



CONCLUSION

A non-combustibility test in accordance with British Standard 476 Part 4:1970 was performed on the material described in this report, and the classification of the sample is Non-Combustible.

| Indoor Air Quality | | |
|---|-----------------------|---------|
| | Unit | Results |
| Total Volatile Organic Compounds (TVOC) | mg/(m ³ h) | 0.002 |
| Toluene | mg/(m ³ h) | N/D |
| Formaldehyde | mg/(m ³ h) | N/D |

Official method of Indoor air quality ES 02131.(National Institute of Environmental Resarch notification 2023-1) _KOREA

Test Report No. 7191230002-MEC2019-YWA
dated 17 Jun 2020

SUBJECT:
Non-combustibility test on Brand: "Shinwoong Safe Board", Model: "SW-SFB486"
Improved superior MgO Board for Wall Covering and Ceiling submitted by STX Service
Singapore Pte Ltd on 11 Jun 2020.

TESTED FOR:
STX Service Singapore Pte Ltd
11 Kian Task Crescent,
Singapore 628877

DATE OF TEST:
26 Jun 2020

PURPOSE OF TEST:
To determine whether the material is non-combustible when it is exposed to the
conditions of the test specified in British Standard 476 Part 4:1970 "Fire Test on Building
Materials and Structures - Non-combustibility Test for Materials".

The test was conducted at TÜV SÜD PSB's fire test laboratory located at No. 10 Tuen
Avenue 10, Singapore 639134.

Yung JF

The results reported herein have been performed
in accordance with the terms of accreditation under
the Singapore Accreditation Council
Approved Certification Body number T001.
SINGAPORE ACCREDITED in the Report are not
intended for use for any other purpose.
Approval for use for inspection only.

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TEST REPORT

1. NO : K204-01000
2. Client : Korea Environmental Industry and Technology Institute (KEITI) 100-100 Gyeonggi-do, Korea
3. Date of Test : 2020-06-26 ~ 2020-06-26
4. Site of Report : Fire Laboratory of Korea Environmental Institute
5. Test Sample : Shinwoong Safe Board (SW-SFB486)
6. Test Method : (1) British Standard BS 476-4:1970, (2) National Institute of Environmental Research
Notification 2023-1
7. Test Results

| Test Item | Test Result | Remarks | Unit |
|------------------------|-------------|---------|------|
| Time to Ignition (TIG) | 210 | Pass | s |
| Flame Height | 0 | Pass | mm |
| Heat Release Rate | 0 | Pass | W/m² |

8. Location : 100-100 Gyeonggi-do, Korea

Tested By : *[Signature]* Technical Manager
Date : 2020-06-26

2024.03.11
Korea Certified by Laboratories
Approved by KOLAS, Republic of Korea

Report No. : K204-01000, 100-100 Gyeonggi-do, Korea 02-01-000-000

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