

# ICC Spray-Applied Fireproofing Practice Test (Sample)

## Study Guide



**Everything you need from our exam experts!**

**Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.**

**ALL RIGHTS RESERVED.**

**No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.**

**Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.**

**SAMPLE**

# Table of Contents

**Copyright** ..... 1

**Table of Contents** ..... 2

**Introduction** ..... 3

**How to Use This Guide** ..... 4

**Questions** ..... 5

**Answers** ..... 8

**Explanations** ..... 10

**Next Steps** ..... 16

SAMPLE

# Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

**Remember:** successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

# How to Use This Guide

**This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:**

## **1. Start with a Diagnostic Review**

**Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.**

## **2. Study in Short, Focused Sessions**

**Break your study time into manageable blocks (e.g. 30 - 45 minutes). Review a handful of questions, reflect on the explanations.**

## **3. Learn from the Explanations**

**After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.**

## **4. Track Your Progress**

**Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.**

## **5. Simulate the Real Exam**

**Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.**

## **6. Repeat and Review**

**Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.**

**There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!**

## Questions

SAMPLE

- 1. How often should thickness tests be conducted in a building?**
  - A. Every new floor**
  - B. According to floor structure**
  - C. Based on number of floors**
  - D. On demand by site inspectors**
  
- 2. What is the lowest allowable average mil thickness for a beam requiring 65 mils for TFIFRM?**
  - A. 60 mils**
  - B. 62 mils**
  - C. 65 mils**
  - D. 68 mils**
  
- 3. How long must the minimum temperature of 40°F be maintained after the application of SFRM?**
  - A. 12 hours**
  - B. 24 hours**
  - C. 36 hours**
  - D. 48 hours**
  
- 4. Which thickness is the allowable maximum on testing a truss with TFIFRM?**
  - A. 50 mils**
  - B. 60 mils**
  - C. 70 mils**
  - D. 80 mils**
  
- 5. Which is a crucial environmental factor affecting fireproofing materials?**
  - A. Presence of carbon dioxide**
  - B. Natural sunlight exposure**
  - C. Humidity and temperature**
  - D. Outdoor air quality**

- 6. To maintain measurement accuracy, what is the ambient condition for SFRM samples?**
- A. 30% humidity**
  - B. 50% humidity**
  - C. 60% humidity**
  - D. 70% humidity**
- 7. What is the lowest allowable thickness for a wide flange column's SFRM application?**
- A. 1-1/4 inch**
  - B. 1-1/2 inch**
  - C. 1-3/4 inch**
  - D. 2 inch**
- 8. Which of the following can be used to create a mechanical break between SFRM and substrate?**
- A. Wood planks**
  - B. 12-gauge steel studs**
  - C. Fiberglass sheets**
  - D. Metal lath only**
- 9. How many total SFRM thickness measurements are taken on a joist?**
- A. 10**
  - B. 12**
  - C. 14**
  - D. 16**
- 10. What is the allowable test cap diameter range when testing SFRM bond strength?**
- A. 1 to 2 inches**
  - B. 2 to 3 inches**
  - C. 2 to 3-1/4 inches**
  - D. 3 to 4 inches**

## Answers

SAMPLE

1. C
2. C
3. B
4. B
5. C
6. C
7. C
8. B
9. C
10. C

SAMPLE

## **Explanations**

SAMPLE

**1. How often should thickness tests be conducted in a building?**

- A. Every new floor**
- B. According to floor structure**
- C. Based on number of floors**
- D. On demand by site inspectors**

Thickness tests for spray-applied fireproofing are essential for ensuring that the fire-resistance rating of a building is met. These tests are typically addressed in accordance with specific building codes and standards. The frequency of testing is often tied directly to factors such as the number of floors and the expected load and stress on the fireproofing material. Conducting thickness tests based on the number of floors in a building is important because different heights and designs require varying levels of fire protection. As buildings increase in height, they tend to face more complex challenges related to thermal expansion, structural integrity, and load-bearing requirements. Therefore, testing at specific intervals or based on the total number of floors allows for a systematic approach to ensure that fireproofing is adequate throughout the building. While other options may suggest different testing frequencies, they do not align with the established norms for ensuring consistent safety in fireproofing across various structural designs and applications. This systematic approach contributes to maintaining compliance with safety regulations and helps assess the quality and effectiveness of the fireproofing material used.

**2. What is the lowest allowable average mil thickness for a beam requiring 65 mils for TFIFRM?**

- A. 60 mils**
- B. 62 mils**
- C. 65 mils**
- D. 68 mils**

The requirement for an average mil thickness of 65 mils for a beam indicates that this is the target thickness needed to achieve the necessary fire resistance. In fireproofing applications, the average thickness is important to ensure adequate protection against fire exposure. Selecting 65 mils as the lowest allowable thickness means that it must meet or exceed the specified requirement precisely. Using a lower average thickness could compromise the performance of the fireproofing material, potentially putting the structure at risk during a fire event. Therefore, maintaining the average thickness at the specified level is essential for safety standards and compliance with fire resistance criteria. This is why the correct answer reflects the requirement set for TFIFRM to ensure effective fire protection.

**3. How long must the minimum temperature of 40°F be maintained after the application of SFRM?**

- A. 12 hours
- B. 24 hours**
- C. 36 hours
- D. 48 hours

Maintaining the minimum temperature of 40°F after the application of Spray-Applied Fire-Resistive Material (SFRM) is essential for ensuring proper curing and adhesion. When SFRM is applied, it undergoes a chemical process that requires a certain temperature range to ensure the material can set effectively. Maintaining this temperature for at least 24 hours allows the SFRM to cure properly, thereby achieving the necessary fire-resistant properties and ensuring the material bonds adequately to the substrate it's applied to. If the temperature falls below this threshold for an extended period right after application, it could hinder the curing process, potentially compromising the integrity and performance of the fireproofing. Therefore, upholding the specified minimum temperature for 24 hours is critical to achieving the desired fire protection standards and performance criteria.

**4. Which thickness is the allowable maximum on testing a truss with TFIFRM?**

- A. 50 mils
- B. 60 mils**
- C. 70 mils
- D. 80 mils

The maximum thickness allowable for testing a truss with TFIFRM is 60 mils. This specification is crucial because it ensures that the fireproofing material adheres to performance standards that guarantee the structural integrity of the truss under fire conditions. Exceeding this thickness could lead to issues such as insufficient bonding, which may compromise the fireproofing's effectiveness, and can also impact the truss's overall structural behavior during a fire event. In practical applications, fireproofing materials are tested to demonstrate their ability to provide adequate protection within established thickness limits. Adhering to the maximum allowable thickness ensures that the material maintains its designed fire-resistance ratings, which is vital for safety regulations and building codes. Understanding these thickness limits helps professionals in the field ensure compliance with industry standards while maintaining the performance characteristics required for effective fire protection.

**5. Which is a crucial environmental factor affecting fireproofing materials?**

- A. Presence of carbon dioxide**
- B. Natural sunlight exposure**
- C. Humidity and temperature**
- D. Outdoor air quality**

Humidity and temperature are critical environmental factors that significantly impact the performance and application of fireproofing materials. These factors can affect the drying and curing processes of spray-applied fireproofing materials, influencing how well they adhere to substrates and how effectively they can provide fire resistance. For example, if the humidity is too high, it can extend the time required for the fireproofing material to cure properly, which may compromise its effectiveness. Conversely, excessive heat may cause the material to dry too quickly, leading to insufficient adhesion or cracking. Therefore, maintaining appropriate humidity and temperature conditions during application is vital to ensure that fireproofing materials function as intended when exposed to fire. While other factors like carbon dioxide presence, natural sunlight exposure, and outdoor air quality may have some indirect effects on the longevity and durability of materials, they do not have the same immediate impact on the application process and initial performance of fireproofing materials as humidity and temperature do.

**6. To maintain measurement accuracy, what is the ambient condition for SFRM samples?**

- A. 30% humidity**
- B. 50% humidity**
- C. 60% humidity**
- D. 70% humidity**

To maintain measurement accuracy for Spray-Applied Fire-Resistant Materials (SFRM) samples, it is essential to consider the ambient conditions, particularly humidity. A humidity level of 60% is often considered optimal because it strikes a balance that helps in preventing excessive moisture absorption by the SFRM, which can affect the material properties and ultimately influence test outcomes. At this level of humidity, the material can accurately reflect its performance characteristics as it would in intended use conditions. Higher or lower humidity levels may result in either premature drying or excessive moisture retention, both of which would skew the results related to density, adhesion, and other critical performance metrics of the fireproofing material. This control over environmental conditions is crucial in ensuring that testing results are reliable and reproducible.

**7. What is the lowest allowable thickness for a wide flange column's SFRM application?**

- A. 1-1/4 inch**
- B. 1-1/2 inch**
- C. 1-3/4 inch**
- D. 2 inch**

The correct answer regarding the lowest allowable thickness for a spray-applied fire-resistive material (SFRM) application on a wide flange column is 1-3/4 inches. This thickness is based on building codes and fire safety regulations which dictate that it must provide sufficient thermal protection to the structural steel in case of a fire. SFRM serves to insulate the structural steel and delay the time it takes for the steel to reach critical temperatures, at which point its load-bearing capacity diminishes significantly. The specified thickness of 1-3/4 inches is derived from testing and performance data that demonstrate this level effectively meets the required fire-resistance ratings. Applying less than this thickness could compromise the fire protection and lead to unsafe conditions in the event of a fire. Understanding these requirements is crucial for ensuring that structures can withstand fire exposure, thus protecting both the building and its occupants. This emphasizes the importance of adhering to prescribed thickness standards in the application of fireproofing materials on structural steel elements.

**8. Which of the following can be used to create a mechanical break between SFRM and substrate?**

- A. Wood planks**
- B. 12-gauge steel studs**
- C. Fiberglass sheets**
- D. Metal lath only**

Using 12-gauge steel studs to create a mechanical break between Spray-Applied Fire-Resistive Material (SFRM) and substrate is an effective choice due to their structural integrity and compatibility with fireproofing materials. The studs help to provide a stable framework that can securely hold the SFRM while allowing for proper expansion and contraction, reducing the risk of cracking or failure in the fireproofing layer. This mechanical break is crucial in maintaining the effectiveness of the fireproofing system, especially in dynamic environments where movement can occur. Other materials, while they may seem viable for creating a mechanical break, do not provide the same level of strength, support, or fire-resistance properties as steel studs. For example, wood planks may not have sufficient durability or resistance to various environmental conditions, while fiberglass sheets might lack the necessary structural support. Additionally, metal lath is often used as a reinforcing element but does not serve as an effective mechanical break by itself. Therefore, steel studs are the most appropriate choice for ensuring a reliable and efficient mechanical separation in fireproofing applications.

**9. How many total SFRM thickness measurements are taken on a joist?**

- A. 10**
- B. 12**
- C. 14**
- D. 16**

In determining the total number of Spray-Applied Fire-Resistive Material (SFRM) thickness measurements taken on a joist, the correct answer is based on established standards and practices regarding fireproofing assessment. The requirement for thickness measurements often follows specific guidelines set forth by relevant codes or testing standards. For a standard joist application, 14 total measurements are typically required. This is important to ensure a comprehensive evaluation of the fireproofing layer to effectively assess its uniformity and adequacy across the structure. This practice is crucial for verifying that the applied fireproofing meets the necessary performance criteria and provides sufficient protection against fire. In summary, the total of 14 thickness measurements allows for a detailed quality control process, ensuring compliance with safety standards and enhancing the overall fire resistance of the joist assembly.

**10. What is the allowable test cap diameter range when testing SFRM bond strength?**

- A. 1 to 2 inches**
- B. 2 to 3 inches**
- C. 2 to 3-1/4 inches**
- D. 3 to 4 inches**

The allowable test cap diameter range for testing Spray-Applied Fire-Resistive Materials (SFRM) bond strength is between 2 to 3-1/4 inches. This range is specified to ensure that the test adequately represents the bond strength of the fireproofing material applied to structural elements. A cap that is too small may not provide sufficient surface area for accurate testing, while one that is too large might influence the results due to variations in substrate or curing conditions. Remaining within the specified range allows for consistency in testing procedures and results, enabling reliable comparisons across different applications and materials. This guideline helps ensure that the tested samples reflect the real-world application conditions for the SFRM, supporting safety and performance standards in fire prevention.

## Next Steps

**Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.**

**As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.**

**If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at [hello@examzify.com](mailto:hello@examzify.com).**

**Or visit your dedicated course page for more study tools and resources:**

**<https://iccsprayappliedfireproofing.examzify.com>**

**We wish you the very best on your exam journey. You've got this!**

SAMPLE