

Concrete Coating Inspector - Level 2 Theory Exam

Exam Preparation Guide

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Introduction

The Concrete Coating Inspector Theory Exam Level 2 is designed to assess whether a candidate has the requisite knowledge and skills that a minimally qualified Concrete Coating Inspector (Level 2) must possess. A candidate should have knowledge in the proper methods of inspecting surface preparation and installation of protective coatings on industrial concrete structures and facilities.

Test Name	Concrete Coating Inspector Level 2 Theory Exam
Test Code	ConcreteCtgsIn2
Total Seat Time ⁺	2 Hours (120 minutes)
Number of Questions	100
Format	Computer-Based Testing (CBT)

NOTE: A **Pass/Fail** result is provided at the end of the exam.

⁺Total Seat Time includes 10 minutes for a Tutorial & Non-Disclosure Agreement and 110 minutes for the Exam.

Requirements

Requirements for Concrete Coating Inspector Level 2

- Prerequisites
- Certification Exams
- Additional Requirements

Prerequisites
Certification - Concrete Coating Inspector (Level 1)
Work experience and Training Experience*
Ethics for the Corrosion Professional Course or an equivalent training
CCI Level 2 Certification Exam Requirements
Practical Exam <u>and</u> Inspection Plan Exam
Theory Exam (CBT)
Additional Requirements
Complete the AMPP Terms of Service, Candidate Agreement, and Code of Professional Conduct (in My Certification Portal)

*CCI Level 2 Application & Work Experience Requirements:

- *Path A:* 2 years (3,000 hours) of relevant concrete coating and/or surfacing experience **AND** active AMPP Basic/Certified/Senior Certified Coatings Inspector certification (i.e., CIP Level 1, 2, or 3). Candidates must have **2 qualification references**.
- *Path B:* 5 years (7,500 hours) of relevant concrete coating and/or surfacing experience (no additional certification required, other than CCI Level 1). Candidates must have **2 qualification references**.

Certification renewal requirements

- Recertification application* required every 3 years
- 1.5 years (18 months) of concrete work experience in coating inspections
- 12 Professional Development Hours (PDHs) since last renewal
- Must have satisfied Ethics requirements

Upon successful completion of requirements, the candidate will be awarded an **AMPP Concrete Coating Inspector Level 2 Certification**.

**Approval required*

Exam Blueprint

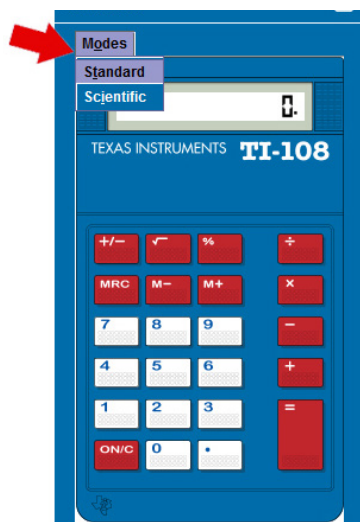
NOTE: At the end of the computer-based exam, candidates will receive a bar chart of strengths and weaknesses that correspond to these Domains.

1. Ambient Condition (5% - 10%)
2. Coating Application (5% - 10%)
3. Coating Defect (1% - 5%)
4. Coating Inspection (25% - 30%)
5. Coating Material (5% - 10%)
6. Concrete Construction (10% - 15%)
7. Concrete Failure (5% - 10%)
8. Health & Safety (1% - 5%)
9. Project Specification (10% - 15%)
10. Standards (10% - 15%)
11. Surface Preparation (5% - 10%)

Calculators

Candidates will have access to either a TI Standard or TI Scientific calculator for use during the CBT Exam.

Standard Calculator



Standard Mode Functions

Add	$+$	
Subtract	$-$	
Multiply	$\times$	
Divide	$\div$	
Negative	$(-)$	
Percentage	$\%$	
Square Root	$\sqrt{}$	Example: $4\sqrt{}$
Reciprocal (Inverse)	x^{-1}	Example: $1 \div 2 =$
Store value to variable	$\text{M}+$	Example: $3 \times 5 = \text{M}+$
Access variable	MRC	Example: $7 + \text{MRC} =$
Clear variable	M- MRC	

Scientific Calculator



Scientific Mode Functions

Add	$+$	
Subtract	$-$	
Multiply	$\times$	
Divide	$\div$	
Negative	$(-)$	
Percentage	2^{nd} $\%$	
Square Root	$\sqrt{}$	Example: $2^{\text{nd}} \sqrt{} 4 \text{ enter}$
Reciprocal (Inverse)	x^{-1}	Example: $2 x^{-1} \text{ enter}$
Store value to variable	$\text{sto} \blacktriangleright$ X^{yzt}	Example: $3 \times 5 \text{ enter } \text{sto} \blacktriangleright X^{yzt} \text{ enter}$
Access variable	X^{yzt} or 2^{nd} $[\text{recall}]$	Example: $7 + 2^{\text{nd}} [\text{recall}] \text{ enter } \text{enter}$

Numeric Notation

Standard (Floating Decimal)

Notation (digits to the left and right of decimal)

mode menu options

NORM SCI ENG e.g. 123456.78
 FLOAT 0 1 2 3 **4** 5 ... e.g. 123456.7800

Scientific Notation

(1 digit to the left of decimal and appropriate power of 10)

mode menu options

NORM **SCI** ENG e.g. 1.2345678*10⁵

Engineering Notation

(number from 1 to 999 times 10 to an integer power that is a multiple of 3)

mode menu options

NORM **SCI** ENG e.g. 123.45678*10³

Fractions

Simple fractions	$\boxed{n/d}$
Mixed numbers	$\boxed{2nd} \boxed{[Un/d]}$
Conversion b/w simple fraction and mixed number	$\boxed{2nd} \boxed{[n/d \blacktriangleleft \blacktriangleright Un/d]}$
Conversion b/w fraction and decimal	$\boxed{2nd} \boxed{[f \blacktriangleleft \blacktriangleright d]}$

Powers, roots, and inverses

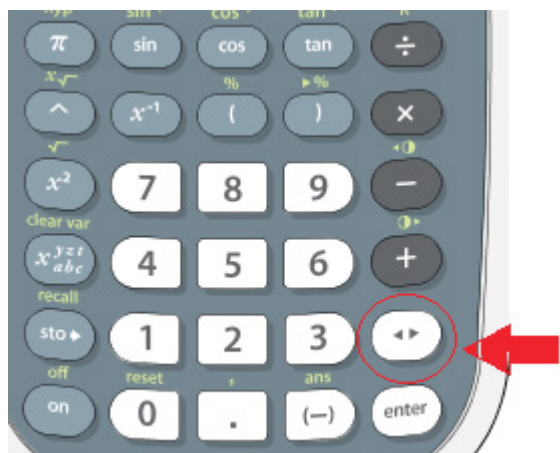
Square a value	$\boxed{x^2}$	
Cube a value	$\boxed{\wedge}$	
Raise value to specified power	$\boxed{\wedge}$	Example (2^4) $2 \boxed{\wedge} 4$
Square root	$\boxed{2nd} \boxed{[\sqrt{\quad}]}$	Example ($\sqrt{16}$): $\boxed{2nd} \boxed{[\sqrt{\quad}]} 16$
Reciprocal	$\boxed{x^{-1}}$	Example (n^{th} root): 5 th root of 8: $5 \boxed{2nd} \boxed{[x^{\sqrt{\quad}}]} 8$

Pi

PI (π)	$\boxed{\pi}$
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Toggle

The scientific calculator might show the results of certain calculations as a fraction - possibly involving pi or a square root. To convert this kind of result to a single number with a decimal point, you will need to use the “toggle answer” button circled in the picture below. Pressing this button will change the display from a fractional to a decimal format.



Answer Toggle



Press the  key to toggle the display result between fraction and decimal answers, exact square root and decimal, and exact pi and decimal.

Example

Answer toggle	$\boxed{2nd} \boxed{[\sqrt{\quad}]} 8 \text{ enter}$	$\sqrt{8}$ $2\sqrt{2}$
		$\sqrt{8}$ $2\sqrt{2}$ 2.828427125

If you find this on-screen calculator difficult to use, raise your hand and ask the Test Administrator to provide you with a hand-held scientific calculator. If available, you will be provided with a scientific or non-scientific calculator. Candidates are not permitted to bring their own calculator into the testing room.