

# Hardened Concrete Properties

## KT-79 Surface Resistivity Indication of Concrete's Ability to Resist Chloride Ion Penetration

Revised July 2018

Two attempts may be made by the applicant. The applicant may stop themselves once and not have that count as one of the two attempts. If the applicant stops voluntarily, draw a line at that point and note that the applicant stopped themselves then restart at the top of the next attempt.

Applicant: \_\_\_\_\_

CIT #: \_\_\_\_\_

Employer: \_\_\_\_\_

		1st Test		Stopped Test		Re-Test	
	<b>Test Specimen</b>						
1.	<u>Prepare 3 specimens per mix design. The specimens shall be 4" x 8" (100mm X 200mm) cylinders cast at time of mixing. (4.1)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
2.	<u>Cast samples must undergo initial curing procedures according to KT-22 with the requirements that samples are to be submitted to the testing facility within 48 hours of casting.(5.1)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
3.	Make four marks on the top circular face of the specimen marking the 0, 90, 180, 270 degree points of the circumference of the circle. On the longitudinal sides mark the center of the longitudinal length of the specimen in order to use as a visual reference during testing.(5.2)	PASS	FAIL	PASS	FAIL	PASS	FAIL
	<b>Procedure</b>						
4.	Specimens are to be tested no earlier than 1 day before, or no later than 4 days after the specified test date. (Note)	PASS	FAIL	PASS	FAIL	PASS	FAIL
5.	Calibrate the unit using the test strip provided by the manufacturer each day of testing.(6.1)	PASS	FAIL	PASS	FAIL	PASS	FAIL
6.	Remove the specimen from water, blot off excess water to SSD condition, and transfer specimen to specimen holder. (6.3)	PASS	FAIL	PASS	FAIL	PASS	FAIL

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7.	Place the meter longitudinally on the side of the specimen at the 0 degree mark. Center the meter longitudinally on the specimen. (6.4)	PASS	FAIL	PASS	FAIL	PASS	FAIL
8.	Make sure all the points of the array probe are in contact with the concrete. (6.4)	PASS	FAIL	PASS	FAIL	PASS	FAIL
9.	Wait until a stable reading is obtained, and record the resistivity measurement on the testing form to the nearest 0.1 kΩ-cm. (6.4)	PASS	FAIL	PASS	FAIL	PASS	FAIL
10.	<u>Repeat step 6.4 for the 90, 180, and 270 degree marks. (6.5)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
11.	<u>Repeat steps 6.4 and 6.5 for the same specimen for a total of eight readings. (6.6)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
12.	<u>Repeat steps 6.4 to 6.6 for the remaining two specimens in the sample set. (6.8)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL

### Overall Score

Circle One

**1st Test**

PASS

FAIL

**Stopped Test**

PASS

FAIL

**Re-Test**

PASS

FAIL

**Witness Examiner:**

(First Try)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Witness Examiner:**

(Stopped Try)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Witness Examiner:**

(Re-Test)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date