Masonry Cement Samples 93 & 94

Please Note:

- Please allow until August 2nd for receipt of samples.
- Both of the cements are Type M, ASTM C91 Masonry cements.
- Determine the density of these masonry cements. Use these densities in the air content calculations.

How to Submit Test Results:

- On the CCRL Home Page, enter your lab number and PIN and click on "SIGN IN".
- Click on "Masonry Cement" from the menu on the left.
- Click on "Enter Data"
- Make sure the information at the top of the screen is accurate.
- Carefully enter your data. Round data properly. Data that is not rounded correctly cannot be submitted until correction is made. You will receive an error saying you have bad data, and the data will not be entered into the website.
- DO NOT enter "N/A" or zeros for data that you are not reporting, leave this data area blank. Zeros will be interpreted as data.
- Once all data has been entered click on the "Submit" button.
- You should see a confirmation screen. Print the confirmation screen for your records.
- If you have trouble entering or do not receive confirmation visit Data Entry Trouble Shooting or contact CCRL via ccrl@astm.org or by calling 240-436-4800, prior to the closing date. **CCRL cannot make accommodations for data received after the closing date.**
- **Sign out of the website and login again to check that your data was submitted properly.** You may add data or make corrections up to the closing date.

- **Closing date for submitting test results September 13, 2024**.

July 12, 2024

TO: Participants in the CCRL Masonry Cement Proficiency Sample Program

SUBJECT: Masonry Cement Proficiency Samples No. 93 and No. 94

The current pair of Masonry Cement Proficiency Samples are being forwarded by FedEx Ground to domestic addresses. Various methods are being used for international shipments. These samples are packaged in separate boxes and each contains approximately 7,500 grams of material. The boxes are labeled to identify the sample. You must label each bag of cement with the sample number when removing the cement from the box.

Please allow until August 2, 2024, for receipt of these samples (non-receipt date). Please weigh these bags to ensure that you have received the proper amount of each material. If the samples have not been received on this date or if the samples you received were damaged, you need to notify us in writing, so please email us at ccrl@astm.org. Replacement samples will be sent. Failure to notify us by this date may result in you not receiving replacement samples in time to perform the necessary testing. Additional shipping charges will be incurred, if contact is not made by the non-receipt date.

These tests should be conducted as soon as possible after the samples are received, and the test results should be promptly reported to CCRL upon completion of testing. Test results should be entered at our website: www.ccrl.us.

A final report containing scatter diagrams, average values, standard deviations, laboratory ratings and other pertinent information will be available at our website. Notice and information about the final report will be sent by email.

Instructions covering the proposed tests, and the necessary data sheets for reporting the test results are on the following pages. Please read these carefully before testing.

Additional samples of this sample pair will be available for sale after the final report has been issued. Past CCRL samples for other programs are also available for sale. These samples can be used for research, technician training, and test equipment verification. Contact us for availability and pricing.

Sincerely,

Kent Niedzielski
Program Manager
Proficiency Sample Programs
Cement and Concrete Reference Laboratory

CCRL Proficiency Sample Program
MASONRY Cement
Samples No. 93 and No. 94

Instructions for Testing

The two samples for the tests are packaged in separate boxes, each of which contains approximately 7,500 grams of cement. The material for the odd numbered sample represents one cement, and the material for the even numbered sample represents another cement. The odd and even numbered samples should not be combined. Both cements are ASTM C91 Type M Masonry Cement. Prepare mortar in accordance with Section 14 and Table 2 of C91-23.

Tests

Prior to testing, pass the cement for the tests through a No. 20 sieve in accordance with ASTM Standard C183.

Insofar as your laboratory is prepared to do so, make indicated tests on each sample in accordance with the current ASTM Methods designated below, but as modified by ASTM C91-23

Normal Consistency	ASTM C187-23
Time of Setting, Gillmore	ASTM C266-21
Soundness, Autoclave	ASTM C151-23
Air Content	ASTM C185-20
Compressive Strength (6 cube batch)	ASTM C109-23
Fineness, by the 45-µm Sieve	ASTM C430-17
Water Retention	ASTM C1506-17
Density	ASTM C188-17(23)

It is preferred that the same operator make the same tests on both samples, on the same day. The results of a single determination should be reported rather than the average of duplicate determinations.

Instructions for Reporting

For the sake of uniformity, report the values for the various tests to the nearest significant number indicated on the reporting forms.

Test results should be entered at our website: http://www.ccrl.us/.

CCRL PROFICIENCY SAMPLE PROGRAM
MASONRY CEMENT TESTS REPORT FORM
SAMPLES NO. 93 & NO. 94

RETURN TO: Kent Niedzielski, Program Manager
Proficiency Sample Programs
Cement and Concrete Reference Laboratory
4441 Buckeystown Pike, Suite C
Frederick, Maryland 21704
Email: ccrl@astm.org
Enter test results at our website: www.ccrl.us

FROM: _____
_____
_____
_____
_____
e-mail: _____

TEST RESULTS
Report Results as Indicated in ( )

	Sample No. 93	Sample No. 94	
NORMAL CONSISTENCY:			
Water *(nearest 0.1 percent by weight of cement)*			[110]
GILMORE TIME OF SETTING:			
Initial Set, Report in **minutes** *(nearest 5 minutes)*			[130]
Final Set, Report in **minutes** *(nearest 5 minutes)*			[140]

AUTOCLAVE EXPANSION:

	No. 93	No. 94		
Final Reading				
Initial Reading				
Difference				
Percent Expansion *(nearest 0.01 percent)*				[160]

AIR ENTRAINMENT:

Percent Air *(nearest 0.1 percent)*			[170]
Mixing Water *(nearest 0.1 percent by weight of cement)*			[180]
Flow Obtained *(nearest percent)*			[190]

COMPRESSIVE STRENGTH:

		No. 93	No. 94		
7-day, total load, lbs.	1)				
	2)				
	3)				
Average *(nearest 10 psi)*					[210]
28-day, total load, lbs.	1)				
	2)				
	3)				
Average *(nearest 10 psi)*					[211]

FINENESS: 45-µm (No. 325) Sieve, corrected percent retained *(nearest 0.01 percent)* _____ _____ [281]

	No. 93	No. 94
Correction Factor for 45 µm sieve *(nearest 0.1 percent)*		

DENSITY: *(nearest 0.01 g/cm³)* _____ _____ [310]

Tests performed by _____ Date _____
Tests reported by _____ Title _____
Phone _____ Fax _____ CCRL Laboratory Number _____

CCRL PROFICIENCY SAMPLE PROGRAM
MASONRY CEMENT TESTS REPORT FORM
SAMPLES NO. 93 & NO. 94

RETURN TO: Kent Niedzielski, Program Manager
Proficiency Sample Programs
Cement and Concrete Reference Laboratory
4441 Buckeystown Pike, Suite C
Frederick, Maryland 21704
Email: ccrl@astm.org
Enter test results at our website: www.ccrl.us

FROM: _____
_____
_____
_____
_____
e-mail: _____

TEST RESULTS
Report Results as Indicated in ( )

	Sample No. 93	Sample No. 94	
WATER RETENTION:			
Mixing water *(nearest 0.1 percent by weight of cement)*	_____	_____	[330]
Initial flow *(nearest percent)*	_____	_____	[331]
Final flow *(nearest percent)*	_____	_____	[332]
Water retention *(nearest percent)*	_____	_____	[333]

Type of Vacuum Indicator used with Water Retention Apparatus: ☐ vacuum gage ☐ mercury manometer
Filter Paper used (brand and number): ☐ Humboldt ☐ SS 576 ☐ Whatman
☐ other (please specify) _____

Tests performed by _____ Date _____
Tests reported by _____ Title _____
Phone _____ Fax _____ CCRL Laboratory Number _____