

# Concrete Reinforcing Bar Samples 9 & 10

## Please Note:

- The rebar specimens are contained in a total of two boxes.
  - One box for Sample 9 and one for Sample 10.
  - There are three specimens for each sample.
  - DO NOT mix samples.
- The specimens for Sample No. 9 and Sample No. 10 are A615, Grade 60, #7.
- Please allow until August 6<sup>th</sup> for receipt of samples.
- Read the instructions on the following pages and review ASTM A615 before testing.
- Each rebar specimen has a ID number which is found on the tag attached to the bar. This ID number should be recorded with the test results.
- A370-08 Annex A9.3.5 specifies yield and tensile strength be based on the nominal bar area.
- Report the summation of the gaps for rebar with two ribs
- Closing date for test results is September 10, 2010.



July 22, 2010

**TO: Participants in the CCRL Concrete Reinforcing Bar Proficiency Sample Program**

**SUBJECT: Concrete Reinforcing Bar Samples No. 9 and No. 10**

The current pair of samples for the Concrete Reinforcing Bar Proficiency Sample has been distributed by way of Federal Express Ground. Please allow until August 6, 2010 for receipt of these samples. If these samples have not been received on this date or if the samples you receive are damages, notify us by calling 301-975-6704. Replacement samples will be forwarded. Each sample is packaged in a box containing three bars. These mailing tubes are labeled on the outside as to which sample they contain. **Each specimen is tagged with the sample number and specimen identification. Laboratory personnel must make sure the identity of the each specimens is known during testing and the specimen ID must be recorded with the test results.** The two samples must not be mixed.

The specimens are steel bars used for concrete reinforcement, Samples No. 9 and No. 10 are ASTM A615, Grade 60, #7. Tests are to be conducted separately on each sample. Read the enclosed instructions before proceeding with any testing. It is mandatory that these instructions and ASTM standards A615 be followed. 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: <http://www.ccrl.us/>. The closing date for test results is September 10, 2010.

Additional samples of this sample pair and past CCRL samples are available for sale. These samples can be used for research, technician training, and test equipment verification. Contact us for availability and pricing.

Sincerely,

Robin K. Haupt, Supervisor PSP  
Cement and Concrete Reference Laboratory  
Materials and Construction Research Division  
Building and Fire Research Laboratory

**CEMENT AND CONCRETE REFERENCE LABORATORY**  
**CONCRETE REINFORCING BAR PROFICIENCY SAMPLE PROGRAM**  
**Samples No. 9 and No. 10**

**Instructions**

**INSTRUCTIONS FOR TESTING**

- 1 CCRL Concrete Reinforcing Bar Proficiency Samples Number 9 and Number 10 were distributed July 22, 2010. You should receive two mailing tubes, with each containing three steel reinforcing bars. Sample No. 9 and No. 10 specimens are Grade 60, #7 bars manufactured to comply with ASTM A615 Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement. Please allow 2 weeks for receipt of these samples. **If you have not received two containers by August 6, 2010**, please notify CCRL Proficiency Sample Program, phone: 301-975-6704.
- 2 Each box should be labeled as Sample No. 9 or Sample No. 10. Each specimen is identified with tags. Sample No. 9 is identified with white tags and Sample No. 10 is identified with red tags. In addition to the sample number these labels also contain specimen identification numbers which must be recorded on the reporting forms. **Each specimen should be checked for proper labeling with its identity before removal from its container.** The two samples **must not be mixed**.
- 3 Verify that you have received a total of six pieces of reinforcing bars, three bars of Sample No. 9 and three bars of Sample No. 10, and that they are in good condition. Notify CCRL of any damaged or missing samples.
- 4 Perform all testing in accordance with ASTM Standard A615-08. A copy of this edition of the standard, may be obtained directly from ASTM, phone: 610-832-9585.
- 5 Base yield and tensile strength on the nominal bar area.
- 6 Report the summation of gaps for reinforcing bar with two ribs.

**INSTRUCTIONS FOR REPORTING**

- 1 Report test results on the reporting forms provided, being sure to complete all four pages.
- 2 Report the average test values and the test results for each individual bar. Record the bar identification found on the attached tag.
- 3 Test results must be reported in the units and to the nearest significant numbers indicated for each test on the reporting forms.
- 4 The closing date for submitting test results is September 10, 2010.

Note: Laboratory ratings will only be assigned to the average test results.

**CCRL REPORTING FORM  
CONCRETE REINFORCING BAR  
SAMPLES NO. 9 & NO. 10**

RETURN TO: R. K. Haupt, Supervisor, PSP  
Cement and Concrete Reference Laboratory  
National Institute of Standards and Technology  
100 Bureau Dr., Stop 8618  
Gaithersburg, Maryland 20899-8618  
Fax No. (301) 975-2243

FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*Check here if name or address has changed* \_\_\_\_\_

<input type="checkbox"/> check here if test results submitted on CCRL website.
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**Test Results**

*Report Results as Indicated in []*

WEIGHT PER UNIT LENGTH lb/ft [nearest 0.001 lb/ft]				CCRL Test ID 1010
Specimen No.	Sample No. 9		Sample No. 10	
	Test results	Specimen ID # (found on tag)	Test Results	Specimen ID # (found on tag)
#1				
#2				
#3				
<b>Average (of 3 bars)</b>				

**MEASUREMENT OF DEFORMATIONS**

AVERAGE SPACING inch [nearest 0.001 inch]				CCRL Test ID 1020
Specimen No.	Sample No. 9		Sample No. 10	
	Test results	Specimen ID # (found on tag)	Test Results	Specimen ID # (found on tag)
#1				
#2				
#3				
<b>Average (of 3 bars)</b>				

**Device used for measurement of spacing:**

Tests performed by \_\_\_\_\_ Date \_\_\_\_\_  
 Tests reported by \_\_\_\_\_ Title \_\_\_\_\_  
 Phone \_\_\_\_\_ FAX \_\_\_\_\_ CCRL laboratory number \_\_\_\_\_

**CCRL REPORTING FORM  
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SAMPLES NO. 9 & NO. 10**

RETURN TO  
Cement and Concrete Reference Laboratory  
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FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**MEASUREMENT OF DEFORMATIONS (continued)**

<b>AVERAGE HEIGHT</b> inch [nearest 0.001 inch]				CCRL Test ID 1030
Specimen No.	<b>Sample No. 9</b>		<b>Sample No. 10</b>	
	Test results	Specimen ID # (found on tag)	Test Results	Specimen ID # (found on tag)
#1				
#2				
#3				
<b>Average (of 3 bars)</b>				
<b>Device used for measurement of height:</b>				

<b>GAP (summation of gaps)</b> inch [nearest 0.001 inch]				CCRL Test ID 1040
Specimen No.	<b>Sample No. 9</b>		<b>Sample No. 10</b>	
	Test results	Specimen ID # (found on tag)	Test Results	Specimen ID # (found on tag)
#1				
#2				
#3				
<b>Average (of 3 bars)</b>				
<b>Device used for measurement of gap:</b>				

Tests performed by \_\_\_\_\_ Date \_\_\_\_\_  
 Tests reported by \_\_\_\_\_ Title \_\_\_\_\_  
 Phone \_\_\_\_\_ FAX \_\_\_\_\_ CCRL laboratory number \_\_\_\_\_

**CCRL REPORTING FORM  
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SAMPLES NO. 9 & NO. 10**

RETURN TO  
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FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**TENSILE PROPERTIES**

<b>TENSILE STRENGTH</b> psi [ <i>nearest 10 psi</i> ]				CCRL Test ID 1050
Specimen No.	Sample No. 9		Sample No. 10	
	Test results	Specimen ID # (found on tag)	Test Results	Specimen ID # (found on tag)
#1				
#2				
#3				
<b>Average (of 3 bars)</b>				

<b>YIELD STRENGTH</b> psi [ <i>nearest 10 psi</i> ]				CCRL Test ID 1060
Specimen No.	Sample No. 9		Sample No. 10	
	Test results	Specimen ID # (found on tag)	Test Results	Specimen ID # (found on tag)
#1				
#2				
#3				
<b>Average (of 3 bars)</b>				
<b>Method used to determine yield:</b> <input type="checkbox"/> drop of beam or halt of pointer <input type="checkbox"/> extensometer <input type="checkbox"/> autographic diagram method				

Tests performed by \_\_\_\_\_ Date \_\_\_\_\_  
 Tests reported by \_\_\_\_\_ Title \_\_\_\_\_  
 Phone \_\_\_\_\_ FAX \_\_\_\_\_ CCRL laboratory number \_\_\_\_\_

**CCRL REPORTING FORM  
CONCRETE REINFORCING BAR  
SAMPLES NO. 9 & NO. 10**

RETURN TO  
Cement and Concrete Reference Laboratory  
Fax No. (301) 975-2243

FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**TENSILE PROPERTIES (continued)**

ELONGATION percent [nearest 0.5 percent]				CCRL Test ID 1070
Specimen No.	Sample No. 9		Sample No. 10	
	Test results	Specimen ID # (found on tag)	Test Results	Specimen ID # (found on tag)
#1				
#2				
#3				
<b>Average (of 3 bars)</b>				

**Gage marked with:** center punch    double punch    other - \_\_\_\_\_

**Elongation measure by:** rule & dividers    elongation rule    caliper    elongation caliper  
extensometer    other - \_\_\_\_\_

Tests performed by \_\_\_\_\_ Date \_\_\_\_\_  
 Tests reported by \_\_\_\_\_ Title \_\_\_\_\_  
 Phone \_\_\_\_\_ FAX \_\_\_\_\_ CCRL laboratory number \_\_\_\_\_