



Caribbean Industrial Research Institute

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## REPORT

**Attn:** --

**Project Code:** EC03826588/23

**Client:** ABEL Building Solutions – Ansa McAl Enterprise Limited

**Client Address:** Depot Road, Longdenville

**Report Title:** Testing of Colossus 90x190x300 mm hollow clay blocks

**Report No:** 0399/23/01

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**Reviewed By:**

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**Date:** 2023/02/14

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**Date:** 2023/02/14

**Copy No:**

1 of 1

**Appendices:**

**Report Version:**

**ORIGINAL**

**RE-ISSUE**

**AMENDED**

## Introduction

The client submitted 10 No. 4 inch vertical core hollow clay blocks which they refer to as Colossus 90x190x390 mm blocks for determination of compressive strength and water absorption (5 hour boil). The blocks were submitted on January 25, 2023 and were assigned CARIRI Identification numbers T230556 to T230565.

## Testing and Methodology

Guidelines given in ASTM C67-19: *Standard Test Methods of Sampling and Testing Brick and Structural Clay Tile* were used in the investigation. The client’s IDs are presented in Table 1.

Table 1: Sample Identification and tests requested

CARIRI ID	Client ID			Test requested / assigned
	ID	Discharged date	Analysed Date	
T230556	90 x 190 x 390	NP	NP	Water absorption (5 hour boil)
T230557	90 x 190 x 390	NP	NP	
T230558	90 x 190 x 390	NP	NP	
T230559	90 x 190 x 390	NP	NP	
T230560	90 x 190 x 390	NP	NP	
T230561	-	Tues. 3 <sup>rd</sup> Jan 2023	Wed. 4 <sup>th</sup> Jan 2023	Compressive strength
T230562	-	Wed. 4 <sup>th</sup> Jan 2023	Thur. 5 <sup>th</sup> Jan 2023	
T230563	-	Thur. 5 <sup>th</sup> Jan 2023	Fri. 6 <sup>th</sup> Jan 2023	
T230564	-	Fri. 6 <sup>th</sup> Jan 2023	Sat. 7 <sup>th</sup> Jan 2023	
T230565	-	Sat. 7 <sup>th</sup> Jan 2023	Sun. 8 <sup>th</sup> Jan 2023	

\*NP – Not provided

## Results

Test results are presented in Tables 2 & 3.

Test period: February 03 to 08, 2023

☐ Test Laboratory: CARIRI Materials Laboratory, Trincity West Industrial Estate, Macoya

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Table 2: Water absorption test results

CARIRI ID	Dry weight (g)	Saturated weight (24hr cold water) (g)	Saturated weight (5 hr boiling water) (g)	Absorption after immersion (%)	Absorption after immersion and boiling (%)
T230556	6979.7	7503.7	7673.3	7.5	9.9
T230567	6384.8	6812.0	6987.7	6.7	9.4
T230558	6306.5	6676.6	6845.2	5.9	8.5
T230559	6370.2	6881.9	7011.5	8.0	10.1
T230560	6404.4	6894.9	7033.4	7.7	9.8
<b>Average</b>				<b>7.2</b>	<b>9.6</b>

Table 3: Compressive strength test results

CARIRI ID	Avg. overall dimensions L x B x H (mm)	Surface Area (mm <sup>2</sup> )	Load (N)	Compressive strength (N/mm <sup>2</sup> )
T230561	395×92×191	36340	632500	17.4
T230562	387×90×189	34830	839000	24.1
T230563	386×88×190	33968	1360100	40.0
T230564	391×90×193	35190	756900	21.5
T230565	391×90×192	35190	908100	25.8
<b>Average</b>				<b>25.8</b>

**END OF REPORT**

Test Laboratory: CARIRI Materials Laboratory, Trincity West Industrial Estate, Macoya

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