



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 Classic 90x199x300 mm hollow clay blocks

**Report No:** 0398/23/01

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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 horizontal core hollow clay blocks which they refer to as Classic 90x199x300 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 T230536 to T230545.

## 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
T230536	PM 18.11.23	Water absorption (5 hour boil)
T230537	AM 30.11.22	
T230538	PM 15.12.22	
T230539	PM 17.12.22	
T230540	AM 20.01.23	
T230541	PM 30.11.22	Compressive strength
T230542	PM 16.12.22	
T230543	PM 18.12.22	
T230544	90x199x300	
T230545	90x199x300	

## Results

Test results are presented in Tables 1 & 2.

Test period: February 01 to 07, 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 (%)
T230536	4886.9	5239.2	5361.0	7.2	9.7
T230537	4763.8	5192.3	5305.2	9.0	11.4
T230538	4685.8	5010.1	5128.0	6.9	9.4
T230539	4778.0	5151.1	5273.9	7.8	10.4
T230540	4672.5	5068.4	5162.1	8.5	10.5
<b>Average</b>				<b>7.9</b>	<b>10.3</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> )
T230541	304×91×202	27664	116200	4.2
T230542	301×89×200	26789	200900	7.5
T230543	303×90×200	27270	193200	7.1
T230544	304×91×201	27664	149700	5.4
T230545	305×91×203	27755	140300	5.1
<b>Average</b>				<b>6.0</b>

**END OF REPORT**

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