



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 Hercules 140x190x390 mm hollow clay blocks

Report No: 0400/23/01

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Reviewed By:

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Date: 2023/02/14

Authorized By:

Lisa Ramoutar, Laboratory Manager

Date: 2023/02/14

Copy No:

1 of 1

Appendices:

Report Version:

ORIGINAL

RE-ISSUE

AMENDED

Introduction

The client submitted 10 No. 6 inch vertical core hollow clay blocks which they refer to as Hercules 140x190x390 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 T230546 to T230555.

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	
T230546	140 x 190 x 390	NP	NP	Water absorption (5 hour boil)
T230547	140 x 190 x 390	NP	NP	
T230548	140 x 190 x 390	NP	NP	
T230549	140 x 190 x 390	NP	NP	
T230550	140 x 190 x 390	NP	NP	
T230551	-	Sun. 8 th Jan 2023	Mon. 9 th Jan 2023	Compressive strength
T230552	-	Mon. 9 th Jan 2023	Tues. 10 th Jan 2023	
T230553	-	Tues. 10 th Jan 2023	Wed. 20 th Jan 2023	
T230554	-	Wed. 20 th Jan 2023	Thurs. 12 th Jan 2023	
T230555	-	Thurs. 12 th Jan 2023	Fri. 13 th Jan 2023	

*NP – Not provided

Results

Test results are presented in Tables 2 & 3.

Test period: February 03 to 13, 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 (%)
T230546	8544.0	9318.9	9465.6	9.1	10.8
T230547	8237.0	8883.6	9085.8	7.8	10.3
T230548	8272.6	8806.6	9036.8	6.5	9.2
T230549	8304.0	8971.8	9169.5	8.0	10.4
T230550	8212.6	8879.1	9092.2	8.1	10.7
Average				7.9	10.3

Table 3: Compressive strength test results

CARIRI ID	Avg. overall dimensions L x B x H (mm)	Surface Area (mm ²)	Load (N)	Compressive strength (N/mm ²)
T230551	388×134×194	51992	1201200	23.1
T230552	399×137×193	54663	943400	17.3
T230553	396×136×193	53856	1156700	21.5
T230554	398×137×194	54526	1020400	18.7
T230555	395×136×192	53720	1205700	22.4
Average				20.6

END OF REPORT

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