



Caribbean Industrial Research Institute

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REPORT

Attn: --

Project Code: EC03826506/24

Client: ABEL Building Solutions – Ansa McAl Enterprises Limited

Client Address: Depot Road, Longdenville

Report Title: Testing of Hercules 4×8×16 inch Vertical core hollow clay blocks

Report No: 0237/24/01

Project Chief: Lisa Ramoutar

Author(s): Kareem Jennings and Vinesh Lall

Reviewed By:

Neal Hassim, Civil Technologist

Date: 2023/12/12

Authorized By:

Lisa Ramoutar, Laboratory Manager

Date: 2023/12/12

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Appendices:

Report Version:

ORIGINAL

RE-ISSUE

AMENDED

Introduction

The client submitted ten (10) 4×8×16 inch hollow clay blocks which they identify as “Hercules blocks” for water absorption (5 hr boil) and compressive strength determination. The samples were submitted on October 13, 2023 and were assigned CARIRI Identification numbers T240063 to T240072.

Testing and Methodology

Guidelines given in ASTM C67-18: *Standard Test Methods of Sampling and Testing Brick and Structural Clay Tile* were used in the investigation. Gypsum capping was used for end preparation.

Results

Test period: October 25 to November 21, 2023

Test results are presented in Tables 1 and 2.

Table 1: 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)
T240063	394.1×91.2×191.1	35941.9	1 009 928	28.1
T240064	393.4×92.3×191.9	36310.8	807 313	22.2
T240065	394.7×92.1×191.4	36351.9	758 442	20.9
T240066	393.4×91.3×192.7	35917.4	929 612	25.9
T240067	394.1×91.4×191.8	36020.7	945 575	26.3
			Average	24.7

☐ 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 (%)
T240068	6637.9	7132.6	7329.0	7.5	10.4
T240069	6794.9	7174.6	7390.7	5.6	8.8
T240070	6710.8	7054.8	7280.1	5.1	8.5
T240071	6726.6	7187.4	7370.8	6.9	9.6
T240072	6649.5	7092.7	7306.4	6.7	9.9
Average				6.4	9.4

END OF REPORT

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

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REPORT

Attn: --

Project Code: EC03826506/24

Client: ABEL Building Solutions – Ansa McAl Enterprises Limited

Client Address: Depot Road, Longdenville

Report Title: Testing of Classic 4×8×12 inch Horizontal core hollow clay blocks

Report No: 0238/24/01

Project Chief: Lisa Ramoutar

Author(s): Kareem Jennings and Vinesh Lall

Reviewed By:

Neal Hassim, Civil Technologist

Date: 2023/12/11

Authorized By:

Lisa Ramoutar, Laboratory Manager

Date: 2023/12/11

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Introduction

The client submitted ten (10) 4×8×12 inch hollow clay blocks which they identify as “Classic blocks” for water absorption (5 hr boil) and compressive strength determination. The samples were submitted on October 13, 2023 and were assigned CARIRI Identification numbers T240053 to T240062.

Testing and Methodology

Guidelines given in ASTM C67-18: *Standard Test Methods of Sampling and Testing Brick and Structural Clay Tile* were used in the investigation. Gypsum capping was used for end preparation.

Results

Test period: October 25 to November 21, 2023

Test results are presented in Tables 1 and 2.

Table 1: 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)
T240053	304.3×90.0×201.1	27387.0	265 103	9.7
T240054	305.2×90.2×200.2	27529.0	264 108	9.6
T240055	302.1×91.1×201.4	27521.3	228 856	8.3
T240056	306.0×89.2×201.2	27295.2	218 692	8.0
T240057	305.0×90.1×201.1	27480.5	166 667	6.1
			Average	8.3

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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 (%)
T240058	4561.5	4895.8	5019.2	7.3	10.0
T240059	4731.3	5069.2	5211.6	7.1	10.2
T240060	4707.1	5046.2	5185.6	7.2	10.2
T240061	4690.0	5023.4	5158.6	7.1	10.0
T240062	4909.3	5276.1	5418.8	7.5	10.4
Average				7.2	10.2

END OF REPORT

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

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REPORT

Attn: --

Project Code: EC03826506/24

Client: ABEL Building Solutions – Ansa McAl Enterprises Limited

Client Address: Depot Road, Longdenville

Report Title: Testing of Colossus 6×8×16 inch Vertical core hollow clay blocks

Report No: 0239/24/01

Project Chief: Lisa Ramoutar

Author(s): Kareem Jennings and Vinesh Lall

Reviewed By:

Neal Hassim, Civil Technologist

Date: 2023/12/12

Authorized By:

Lisa Ramoutar, Laboratory Manager

Date: 2023/12/12

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Introduction

The client submitted ten (10) 6×8×16 inch hollow clay blocks which they identify as “Colossus blocks” for water absorption (5 hr boil) and compressive strength determination. The samples were submitted on October 13, 2023 and were assigned CARIRI Identification numbers T240073 to T240082.

Testing and Methodology

Guidelines given in ASTM C67-18: *Standard Test Methods of Sampling and Testing Brick and Structural Clay Tile* were used in the investigation. Gypsum capping was used for end preparation.

Results

Test period: October 25 to November 22, 2023

Test results are presented in Tables 1 and 2.

Table 1: 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)
T240073	394.1×134.5×190.7	53006.5	1 461 790	27.6
T240074	395.0×136.5×190.4	53917.5	1 177 143	21.8
T240075	394.2×136.1×191.4	53650.6	1 365 550	25.5
T240076	396.7×137.5×192.6	54546.3	1 320 571	24.2
T240077	393.2×135.6×189.9	53317.9	1 520 606	28.5
			Average	25.5

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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 (%)
T240078	8872.6	9523.1	9760.4	7.3	10.0
T240079	8578.6	9199.2	9449.3	7.2	10.1
T240080	8678.7	9220.3	9471.6	6.2	9.1
T240081	8747.8	9257.9	9524.0	5.8	8.9
T240082	8911.8	9572.1	9824.3	7.4	10.2
Average				6.8	9.7

END OF REPORT

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