



Caribbean Industrial Research Institute

Mailing Address: Tunapuna Post Office, Trinidad and Tobago
Telephone: (868) 299-0210 Telefax: (868) 662-7177
www.cariri.com Email: mail@cariri.com

REPORT

Attn: Mr. Bimal Seebaran

Project Code: EC03826773/25

Client: ABEL BUILDING SOLUTIONS – ANSA MCAL ENTERPRISES LTD

Client Address: Depot Road Longdenville, Chaguanas

Report Title: Testing of 8" x 8" x 16" SP concrete blocks

Report No: 0113/26/01

Project Chief: Lisa Ramoutar

Author(s): Kareem Jennings

Reviewed By:

Neal Hassim, Civil Technologist

Date: 2025/10/23

Authorized By:

Lisa Ramoutar, Laboratory Manager

Date: 2025/10/23

Copy No: 1 of 1

Appendices: ☐

Report Version:

ORIGINAL ☒

RE-ISSUE ☐

AMENDED ☐

Introduction

The client submitted six (6) 8 inch concrete blocks labeled "190 x 190 x 390 SP" for water absorption and compressive strength determination. The samples were submitted on May 21, 2025 and were assigned CARIRI Identification numbers T251374 to T251379.

Approach

Guidelines given in *ASTM C140-18: Standard test method for sampling and testing of concrete masonry units* were used in the investigation.

Results

Testing period: October 17 to 22, 2025.

Test results are presented in Tables 1 and 2.

Table 1: Compressive strength results of 8 inch concrete blocks

CARIRI ID	Client ID	Avg. overall dimensions LxBxH (mm)	Net cross-sectional area (mm ²)	Load (N)	Net area compressive strength (N/mm ²)	Requirements of ASTM C90-16a
T251374	190x190x390 SP	392.5×190.0×190.0	48 800	1 107 000	22.7	Min. net area compressive strength Average of 3 units - 13.8 N/mm ² Individual unit - 12.4 N/mm ²
T251375		392.5×190.0×190.0	48 700	979 200	20.1	
T251376		392.5×190.0×190.0	48 800	980 950	20.1	
				Average	21.0	

Date tested: October 22, 2025

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Table 2: Water absorption results of 8 inch concrete blocks

CARIRI ID	Client ID	Oven dry density (kg/m ³)	Water absorption (kg/m ³)	Requirements of ASTM C90-16a
T251377	190x190x390 SP	2160	111	Max. water absorption For conc. density >2000 kg/m ³ Average of 3 units - 208 kg/m ³ Individual unit – 240 kg/m ³
T251378		2163	113	
T251379		2173	111	
		Average	2165	

Date tested: October 17 to 22, 2025

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

END OF REPORT

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