



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: EC03826544/24

Client: ABEL BUILDING SOLUTIONS – ANSA MCAL ENTERPRISES LTD

Client Address: Depot Road Longdenville, Chaguanas

Report Title: Testing of 8" x 8" x 16" C1600 concrete blocks

Report No: 0402/24/01

Project Chief: Lisa Ramoutar

Author(s): Delroy John and Vinesh Lall

Reviewed By: *Neal Hassim*
Neal Hassim, Civil Technologist

Date: 2024/02/06

Authorized By: *Lisa Ramoutar*
Lisa Ramoutar, Laboratory Manager

Date: 2024/02/06

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 C1600" for water absorption and compressive strength determination. The samples were submitted on November 20, 2023 and were assigned CARIRI Identification numbers T240324 to T240329.

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: January 04 to 19, 2024.

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
T240324	190x190x390 C1600	392.5×190.0×190.0	38200	1220100	32.0	Min. net area compressive strength Average of 3 units - 13.8 N/mm ² Individual unit - 12.4 N/mm ²
T240325		390.0×190.0×190.0	38150	1207250	31.6	
T240326		390.0×190.0×190.0	37950	887300	23.4	
				Average	29.0	

Date tested: January 19, 2024

1. This report relates only to the specific item(s)/sample(s) which has been tested, analysed, or calibrated by CARIRI. It shall be used solely for informing the client of the results of this specific item(s)/sample(s) and not any other. Information contained herein, shall not be used for any other purposes including, but not limited to, Certification, Advertising, and Marketing.
 2. This report may not be reproduced other than in full, except with the prior written authorization from the Executive Management of CARIRI.
 3. Any Opinions and Interpretations expressed within are outside the scope of our Certification and/or Accreditation.

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
T240327	190x190x390 C1600	2131	119	Max. water absorption For conc. density >2000 kg/m ³ Average of 3 units - 208 kg/m ³ Individual unit – 240 kg/m ³
T240328		2205	108	
T240329		2205	108	
	Average	2180	112	

Date tested: January 04 to 16, 2024

END OF REPORT

1. This report relates only to the specific item(s)/sample(s) which has been tested, analysed, or calibrated by CARIRI. It shall be used solely for informing the client of the results of this specific item(s)/sample(s) and not any other. Information contained herein, shall not be used for any other purposes including, but not limited to, Certification, Advertising, and Marketing.
2. This report may not be reproduced other than in full, except with the prior written authorization from the Executive Management of CARIRI.
3. Any Opinions and Interpretations expressed within are outside the scope of our Certification and/or Accreditation.