BBRI
CSTC-WTCB

BELGIAN BUILDING RESEARCH INSTITUTE

INSTITUTION RECOGNISED BY APPLICATION OF THE DECREE-LAW OF 30 JANUARY 1947

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VAT n° : BE 407.695.057

LABORATORY :	TEST REPORT	N° DE, DAT, RE :	DE 621XA491
Structures (SC)		N° Labo :	MA 3963
		N° Sample :	21 / 68 / 7

REQUESTED BY : CRAFTSTONE INTERNATIONAL PTE LTD
65 SUNGEI KADUT DRIVE
SINGAPORE 729564
ATTN: MR. BENJAMIN CHNG

Q.C.

Contact persons :	**- Demander -**	**- BBRI -**
	Mr Su, Chien Chou	Mr de Barquin

Test carried out : Flexural strength, compressive strength

References : - NBN EN 1926 (1999)
- NBN EN 12372 (1999)

Date and reference of the request	:	04.07.2001
Date of receipt of the sample(s)	:	06.06.2001
Test date	:	24 and 25.07.2001
Drafting date of the report	:	25.07.2001

This report contains **3** pages, numbered from **1/3** to **3/3** ; it may only be reproduced in its entirety.
Each page of the original report has been stamped (in red) by the laboratory and initialled by the head of laboratory.
The results and findings are only valid for the tested samples.

- ☐ No sample
- ☑ Sample(s) submitted to a destructive test
- ☐ Sample(s) to be removed from our laboratories 60 calendar days after sending of the report, unless a written request is received by the demander of the test

In charge of the test

C. Simons

The Head of Laboratory

C.S.T.C. W.T.C.B. SC

ir. V. Pollet

Technical assistance :

CS/WS

1. INTRODUCTION

On request of Hsing Hong Construction Material Co., Ltd, represented by Mr Su, the Laboratory Structures of the BBRI has executed tests to determine the compressive strength and the flexural tensile strength on materials of the Lava Stone type.

2. SAMPLES

The samples have been delivered in the test centre of the BBRI in Limelette on 6 June 2001.
The test samples were registered in the register for test samples under section 21/68/7.

3. TESTS

The different compressive strength tests have been executed according to NBN EN 1926.
The dimensions (length, width, heigth) of the samples, the weight, the apparent density, the maximum load and the compressive strength are listed in the following table :

Sample nr	Length (mm)	Width (mm)	Heigth (mm)	Weight (g)	Apparent density (kg/m³)	Load (N)	Compressive strength (N/mm²)
DE621XA491/001	70.04	70.39	69.94	545	1581	57200	11.60
DE621XA491/002	69.90	71.19	69.28	540	1566	58200	11.70
DE621XA491/003	69.78	71.50	69.54	540	1556	61000	12.23
DE621XA491/004	69.42	71.11	69.61	536	1560	57800	11.71
DE621XA491/005	69.76	72.07	69.37	544	1560	65100	12.95
DE621XA491/006	69.29	70.11	69.60	536	1585	66700	13.73
				Average	**1568**	**Average**	**12.32**
				Standard deviation	**12.1**	***Standard deviation***	**0.86**

Table 1-: Compressive strength

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The different flexural tensile strength have been executed according to NBN EN 12372. The span, the dimensions (length, width, height), the weight, the apparent density, the maximum load and the flexural tensile strength are listed in the following table :

Sample n°	Span (mm)	Length (mm)	Width (mm)	Height (mm)	Weight (g)	Apparent density (kg/m³)	Load (N)	Flexural strength (N/mm²)
DE621XA491/007	150	191.61	92.19	36.31	982	1531	2550	4.72
DE621XA491/008	150	192.71	91.67	35.88	976	1540	2880	5.49
DE621XA491/009	150	192.87	91.7	36.64	986	1522	2990	5.46
DE621XA491/010	150	194.48	92.23	37.27	1056	1580	2930	5.15
DE621XA491/011	150	192.54	91.37	33.46	909	1544	2590	5.70
DE621XA491/012	150	191.88	93.03	34.26	915	1496	2650	5.46
DE621XA491/013	150	190.42	91.93	35.16	954	1550	2980	5.90
DE621XA491/014	150	190.43	92.39	34.97	932	1515	2630	5.24
DE621XA491/015	150	192.64	91.79	36.46	979	1519	2700	4.98
DE621XA491/016	150	190.96	91.97	35.11	951	1542	2630	5.22
					Average	**1534**	**Average**	**5.33**
					Standard deviation	**23.0**	***Standard deviation***	**0.33**

Table 2 - Flexural strength

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