Compressive Strength of Concrete Masonry Unit

PROJECT	Quality Control Test	**DATE**	24-Feb-2019
CLIENT	Hussam Uddin Ibrahim Jamoor Block Factory	**REF**	SMF-4557
LOCATION	Usfan, Jeddah, Kingdom of Saudi Arabia		

Concrete Masonry Units

Length	40.0 cm	Net Area	452.5 cm^2
Height	20.0 cm	Net Volume	9050.0 cm^3
Width	20.0 cm	Gross Volume	16000.0 cm^3

Date Cast		Dimension of Insulation	30.0 x 4.5 cm
Date Received	24 February 2019	Dimension of hole	3.0 x 9.5 cm
Date Tested	24 February 2019	Number of hole	7 cell

Sample No.	SAMPLE DESCRIPTION	Age *(days)*	Weight *(gm)*	Density *gm/cm³*	Load *(kN)*	Strength *(MPa)*
1	Insulated Burkani Block (40 x 20 x 20 cm)	-	11,304	1.249	211.0	4.66
	Lightweight Burkani Block with Rock Wool					

ASTM C 129 Requirements for Non-Load Bearing Concrete Masonry Units

	Compressive Strength based on Net Area (MPa)
Average of 3 units	4.14
Individual unit	3.45

Remarks: Sample tested comforms with the requirements of ASTM C 129

SUPPLIER -

TEST PERFORMED BY :		**CHECKED BY :**	
NAME	Usman	NAME	M. B. Coronado
SIGNATURE		SIGNATURE	
DATE	24 February 2019	DATE	24 February 2019

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SOIL & FOUNDATION CO. LTD.

Thermal Conductivity Test for Burkani Block

TEST REFERENCE: ASTM D 5334

PROJECT	Quality Control Test	**DATE**	24-Feb-2019
CLIENT	Hussam Uddin Ibrahim Jamoor Block Factory	**REF No.**	SMF-4557
LOCATION	Usfan, Jeddah, Kingdom of Saudi Arabia	**EQPT. USE**	KD-2 Pro
SAMPLE	Burkani Block (40 x 20 x 20 cm) with 4.5cm Rock wool Insulation		

	Test Parameters	unit	Test Result			
			1			
1	Length of Sample	mm	400			
2	Width of Sample	mm	200			
3	Height of Sample	mm	200			
4	Face Shell Thickness	mm	25			
5	Insulation Thickness	mm	45			
6	Thermal Conductivity of Block(λ_c)	W/m-^{0}K	0.149			
7	Thermal Conductivity of Rock Wool(λ_{WOOL})	W/m-^{0}K	0.035			
8	Thermal Conductivity of Air(λ_a)	W/m-^{0}K	0.0257			
9	Thermal Resistance for Insulated Blocks (R-Value)	m^2-^{0}K/W	2.513			
10	Thermal Transmittance for Insulated Blocks (U-Value)	W/m^2-^{0}K	0.398			

REMARKS Sample delivered by client to SAFCO laboratory, Information provided by the client

TESTED BY :		**CHECKED BY :**	
NAME	Usman	NAME	M. Coronado
SIGNATURE		SIGNATURE	
DATE	24 February 2019	DATE	24 February 2019

LAB. Jeddah

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SOIL & FOUNDATION CO. LTD.

Compressive Strength of Concrete Masonry Unit

PROJECT	Quality Control Test	**DATE**	24-Feb-2019
CLIENT	Hussam Uddin Ibrahim Jamoor Block Factory	**REF**	SMF-4557
LOCATION	Usfan, Jeddah, Kingdom of Saudi Arabia		

Concrete Masonry Units

Length	40.0 cm	Net Area	452.5 cm^2
Height	20.0 cm	Net Volume	9050.0 cm^3
Width	20.0 cm	Gross Volume	16000.0 cm^3

Date Cast		Dimension of Insulation	30.0 x 4.5 cm
Date Received	24 February 2019	Dimension of smaller hole	3.0 x 9.5 cm
Date Tested	24 February 2019	Number of hole	7 cell

Sample No.	SAMPLE DESCRIPTION	Age *(days)*	Weight *(gm)*	Density *gm/cm³*	Load *(kN)*	Strength *(MPa)*
1	Insulated Burkani Block (40 x 20 x 20 cm)	-	11,542	1.275	204.3	4.51
	Lightweight Burkani Block with Blue Insulation					

ASTM C 129 Requirements for Non-Load Bearing Concrete Masonry Units

	Compressive Strength based on Net Area (MPa)
Average of 3 units	4.14
Individual unit	3.45

Remarks: Sample tested comforms with the requirements of ASTM C 129

SUPPLIER -

TEST PERFORMED BY :		**CHECKED BY :**	
NAME	Usman	NAME	M. B. Coronado
SIGNATURE		SIGNATURE	
DATE	24 February 2019	DATE	24 February 2019

شركة التربة والاساسات المحدودة
SOIL & FOUNDATION CO. LTD.

Thermal Conductivity Test for Burkani Block

TEST REFERENCE: ASTM D 5334

PROJECT	Quality Control Test	**DATE**	24-Feb-2019
CLIENT	Hussam Uddin Ibrahim Jamoor Block Factory	**REF No.**	SMF-4557
LOCATION	Usfan, Jeddah, Kingdom of Saudi Arabia	**EQPT. USE**	KD-2 Pro
SAMPLE	Burkani Block (40 x 20 x 20 cm) with 4.5cm Blue Insulation		

	Test Parameters	unit	Test Result			
			1			
1	Length of Sample	mm	400			
2	Width of Sample	mm	200			
3	Height of Sample	mm	200			
4	Face Shell Thickness	mm	25			
5	Insulation Thickness	mm	45			
6	Thermal Conductivity of Block(λ_c)	W/m-^{0}K	0.151			
7	Thermal Conductivity of EPS(λ_{EPS})	W/m-^{0}K	0.027			
8	Thermal Conductivity of Air(λ_a)	W/m-^{0}K	0.0257			
9	Thermal Resistance for Insulated Blocks (R-Value)	m^2-^{0}K/W	2.355			
10	Thermal Transmittance for Insulated Blocks (U-Value)	W/m^2-^{0}K	0.425			

REMARKS Sample delivered by client to SAFCO laboratory, Information provided by the client

TESTED BY :		**CHECKED BY :**	
NAME	Usman	NAME	M. Coronado
SIGNATURE		SIGNATURE	
DATE	24 February 2019	DATE	24 February 2019

LAB. Jeddah

شركة التربة والاساسات المحدودة
SOIL & FOUNDATION CO. LTD.

Compressive Strength of Concrete Masonry Unit

PROJECT	Quality Control Test	**DATE**	24-Feb-2019
CLIENT	Hussam Uddin Ibrahim Jamoor Block Factory	**REF**	SMF-4557
LOCATION	Usfan, Jeddah, Kingdom of Saudi Arabia		

Concrete Masonry Units

Length	40.0 cm	Net Area	452.5 cm^2
Height	20.0 cm	Net Volume	9050.0 cm^3
Width	20.0 cm	Gross Volume	16000.0 cm^3

Date Cast		Dimension of Insulation	30.0 x 4.5 cm
Date Received	24 February 2019	Dimension of smaller hole	3.0 x 9.5 cm
Date Tested	24 February 2019	Number of hole	7 cell

Sample No.	SAMPLE DESCRIPTION	Age *(days)*	Weight *(gm)*	Density *gm/cm³*	Load *(kN)*	Strength *(MPa)*
1	Insulated Burkani Block (40 x 20 x 20 cm)	-	11,457	1.266	227.1	5.02
	Lightweight Burkani Block with White Insulation					

ASTM C 129 Requirements for Non-Load Bearing Concrete Masonry Units

	Compressive Strength based on Net Area (MPa)
Average of 3 units	4.14
Individual unit	3.45

Remarks: Sample tested comforms with the requirements of ASTM C 129

SUPPLIER -

TEST PERFORMED BY :		**CHECKED BY :**	
NAME	Usman	NAME	M. B. Coronado
SIGNATURE		SIGNATURE	
DATE	24 February 2019	DATE	24 February 2019

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Thermal Conductivity Test for Burkani Block

TEST REFERENCE: ASTM D 5334

PROJECT	Quality Control Test	**DATE**	24-Feb-2019
CLIENT	Hussam Uddin Ibrahim Jamoor Block Factory	**REF No.**	SMF-4557
LOCATION	Usfan, Jeddah, Kingdom of Saudi Arabia	**EQPT. USE**	KD-2 Pro
SAMPLE	Burkani Block (40 x 20 x 20 cm) with 4.5cm White Insulation		

	Test Parameters	unit	Test Result			
			1			
1	Length of Sample	mm	400			
2	Width of Sample	mm	200			
3	Height of Sample	mm	200			
4	Face Shell Thickness	mm	25			
5	Insulation Thickness	mm	45			
6	Thermal Conductivity of Block(λ_c)	W/m-^{0}K	0.153			
7	Thermal Conductivity of EPS(λ_{EPS})	W/m-^{0}K	0.026			
8	Thermal Conductivity of Air(λ_a)	W/m-^{0}K	0.0257			
9	Thermal Resistance for Insulated Blocks (R-Value)	m^2-^{0}K/W	2.353			
10	Thermal Transmittance for Insulated Blocks (U-Value)	W/m^2-^{0}K	0.425			

REMARKS Sample delivered by client to SAFCO laboratory, Information provided by the client

TESTED BY :		**CHECKED BY :**	
NAME	Usman	NAME	M. Coronado
SIGNATURE		SIGNATURE	
DATE	24 February 2019	DATE	24 February 2019

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