Compressive Strength of Concrete Masonry Unit

PROJECT	Qua	lity Control Test				DATE	24-Feb-2019
CLIENT	Hus	sam Uddin Ibrahim Jamoo	r Block Fa	ctory		REF	SMF-4557
LOCATION	Usfa	an, Jeddah, Kingdom of Sa	udi Arabia				
					•		
Concrete Mas	onry Unit	s					
Length		40.0 cm	Net Are	a		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			Dimons	ion of Inquit	ation	30.0 x 4.5	Am.
Date Received		24 February 2019	Dimension of Insulation Dimension of hole			3.0 x 9.5 cm	
	~	24 February 2019	Number of hole				
Date Tested		24 February 2019	Numbe	rornole		7	cell
Sample	CAMBLI	E DESCRIPTION	Age	Weight	Density	Load	Strength
No.	SAMPLI	E DESCRIPTION	(days)	(gm)	gm/cm ³	(kN)	(MPa)
1 Insu	lated Burka	ni Block (40 x 20 x 20 cm)	¥	11,304	1.249	211.0	4.66
Ligh	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	9	SIGNATURE	THE PARTY TO THE P
DATE	24 Pebruary 2019	DATE	24 February 2019 Jeddah

Thermal Conductivity Test for Burkani Block

TEST REFERENCE: ASTM D 5334

PRO.	JECT	Quality Control Test				DATE	24-Feb-2019	
CLIE	CLIENT Hussam Uddin Ibrahim Ja			Factory		REF No.	SMF-4557	
LOC	ATION	Usfan, Jeddah, Kingdom o	of Saudi Ara	abia		EQPT. USE	KD-2 Pro	
SAM	PLE	Burkani Block (40 x 20 x 2	0 cm) with	4.5cm Rock	wool Insulation			
	To	st Parameters	unit	Test Result				
	10.	st raidilleters	dille	1				
1	Length	of Sample	mm	400				
2	Width o	Width of Sample		200				
3	Height	Height of Sample		200				
4	4 Face Shell Thickness		mm	25				
5	Insulati	on Thickness	mm	45				
6	Therma	al Conductivity of Block(λ_c)	W/m- ⁰ K	0.149				

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

W/m-0K

W/m-0K

 m^2-0K/W

 W/m^2-0K

0.035

0.0257

2.513

0.398

Thermal Conductivity of Rock

Thermal Conductivity of Air(λ_a)

Thermal Transmittance for

Insulated Blocks (U-Value)

Thermal Resistance for Insulated

Wool(λ_{WOOL})

Blocks (R-Value)

7

9

TESTED BY	:	CHECKED BY :				
NAME	Usman	NAME	M. Coronado			
SIGNATURE		SIGNATURE	TO LAB.			
DATE	24 February 2019	DATE	24 February 2019 Jeddah			



Compressive Strength of Concrete Masonry Unit

PROJECT	Qu	ality Control Test				DATE	24-Feb-2019
CLIENT	Hu	ssam Uddin Ibrahim Jamoo	or Block Factory			REF	SMF-4557
LOCATION	V Us	fan, Jeddah, Kingdom of Sa	udi Arabia	l			
Concrete	e Masonry Un	ts					
Length		40.0 cm	Net Are	a		452.5	cm ²
Height		20.0 cm	Net Vo	ume		9050.0 cm ³	
Width		20.0 cm	Gross Volume		16000.0 cm ³		
Date Cast			Di				
Date Rece		24 February 2010	Dimension of Insulation		30.0 x 4.5 cm		
Date Test		24 February 2019 24 February 2019	Dimension of smaller hole		3.0 x 9.5 cm		
Date Test	eu	24 Febluary 2019	Number of hole			7	cell
Sample No.	SAMPL	E DESCRIPTION	Age (days)	Weight	Density gm/cm ³	Load (kN)	Strength (MPa)
1	Insulated Burka	ani Block (40 x 20 x 20 cm)	25	11,542	1.275	204.3	4.51
	Lightweight Burkani Block with Blue Insulat		on				

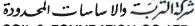
ASTM C 129 Requirements for Non-Load Bearing Concrete Masonry Units

	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:	CVELLE BINNE
NAME	Usman	NAME	M. B. Coronado
SIGNATURE	4	SIGNATURE	TELS IN LAB
DATE	24 February 2019	DATE	24 February 2019





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	
	rest Parameters	unit	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 $Air(\lambda_a)$	W/m- ⁰ K	0.0257			
9	Thermal Resistance for Insulated Blocks (R-Value)	m²-ºK/W	2.355			
10	Thermal Transmittance for Insulated Blocks (U-Value)	W/m²- 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	TAB.
DATE	24 February 2019	DATE	24 February 2019 deadah



Compressive Strength of Concrete Masonry Unit

PROJECT		Qual	ity Control Test				DATE	24-Feb-2019
CLIENT		Huss	sam Uddin Ibrahim Jamoo	r Block Fa	ictory		REF	SMF-4557
_OCATION Usfan,			n, Jeddah, Kingdom of Sa	udi Arabia	l			
							hite	·
Concret	e Masonr	y Units	3					
Length			40.0 cm	Net Are	 ea		452.5	cm ²
Height			20.0 cm	Net Vo	lume		9050.0	cm ³
Width			20.0 cm	Gross Volume			16000.0 cm ³	
						•	4	
Date Cast			Dimension of Insulation			30.0 x 4.5 cm		
Date Rec	eived		24 February 2019	Dimension of smaller hole			3.0 x 9.5 cm	
Date Test	ed		24 February 2019	Number of hole			7 cell	
Sample No.	SA	AMPLE	DESCRIPTION	Age (days)	Weight (gm)	Density gm/cm ³	Load (kN)	Strength (MPa)
1	Insulated	Insulated Burkani Block (40 x 20 x 20 cm)		(*	11,457	1.266	227.1	5.02
	Lightweight Burkani Block with White Insula			ition				

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	THE WAS TO	
DATE	24 February 2019	DATE	24 February 2019 20dah	

Thermal Conductivity Test for Burkani Block

TEST REFERENCE: ASTM D 5334

LOCATION Usfan, Jeddah, Kingdom of Saudi Arabia EQPT. USE KD-2 F	PROJECT	Quality Control Test	DATE	24-Feb-2019
EQT 1. USE IND-2	CLIENT	Hussam Uddin Ibrahim Jamoor Block Factory	REF No.	SMF-4557
CAMPLE D. L. IDLA (ID. A.	LOCATION	Usfan, Jeddah, Kingdom of Saudi Arabia	EQPT. USE	KD-2 Pro
Burkani Block (40 x 20 x 20 cm) with 4.5cm White Insulation	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)	m²- ⁰ K/W	2.353			
10	Thermal Transmittance for Insulated Blocks (U-Value)	W/m²- 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	The same of the sa
DATE	24 February 2019	DATE	24 February 2019 Jeddah

