

Test Summary for Modifed AC-51 Tests

1. Project								
Project			Purpose					
Modulo (1216	67)		To summarize to modifed ICC-ES	-		ith ASTM C1670 Freeze Its on sample 4200		
Company / C	Client		Company Addres	SS	Reported	Reported To		
Modulo / Mih: 2. Test Star			Modulo Decorati STR 22 Decemb Turda, 401113 R	rie No. 29	Mihai Gav	Mihai Gavris		
Source		on Voor	Title			Sanviaa It		
ICC-ES	Designati AC-51*	on Year 2014	Title	ria far Dragat	Stone	Service Items AC51.6 x 1		
ICC-E3	(modified)		Acceptance Crite Veneer		Stone	AC51.0 X	1	
ASTM	STM C567 2014		Standard test me Lightweight Cond		y of Structural	C567 x10	I	
ASTM	STM C39 2012		Standard Test M Strength of Cylin			C39 x 5		
ASTM	C67	2014	Standard Test M Testing Brick and	ethods for Sam	pling and	C67 x 5		
ASTM	C348	2014	Standard Test M of Hydraulic-Cen	ethod for Flexu	C348 x 5			
ASTM	TM C190 1985 (withdrawn)		Standard Test M Hydraulic Cemer		C190 x 5			
ASTM	1 C482 2002		Standard Test M Ceramic Tile to F		C482 x 5	C482 x 5		
ASTM	ASTM C1670 2014 section 6		Standard Specifi Manufactuyred S		C1670 x	C1670 x 5		
3. Sample I	Identificati	on						
Sample By		Cast Date	Sample Collection	on Address		ATG ID		
Client		3/10/2016	Modulo Decorati	ve Solutions	4111			
Client		1/26/2017	STR 22 Decemb Turda, 401113 R		4200 (Fre	eeze Thaw)		
4. Shipping	y / Handling	q						
Inspected By	-	Receipt Date	Condition	Carrier	Handling	Storage	ATG ID	
J. Adams		8/16/2016	Intact	UPS	No MSDS	Ambient	4111	
J. Muzyk		3/3/2017	Intact	UPS	No MSDS	Ambient	4200	
5 Snocimo	ne Pocoju	ed Description (Mix D	osian Not Provid					
Material	ins necelv	Description	esign not Frond	ieu)		Source		
Fabrik (3/10/2	2016)	(10) 6"x23"x1" Veneer S	Stone nanels	cast h	v others	Modulo	(finished prodcut)	
Fabrik (3/10/2	,	(12) 4" x 4" x 4" Cast Cu		,				
Fabrik (3/10/2	,	(10) 4"Φ x 8" Cast Cylin		cast b	Modulo Modulo			
Fabrik (3/10/2		(6) 3" x 3" x 10" Cast Pr		cast b	Modulo			
		from Glen Gery (Address: 4			-			
Fabrik (1/27/1		(5) 3" x 3" x 11" Cast Pr			y others	Modulo		
6. Attachm	ents							
Drawing	ento		Attachments			Photos		
N/A			Chain of Custody	y		N/A		
7. Signatur								
Technicians	63	Test Start Date	Test End Date	Lab Manag	ier To	chnical Man	ager	
Am Va	dre	8/30/2016	3/17/2017		Lit (
Joe Adams			10	Thomas Si	nith Cr	aig Joss, Ph	.D., P.E.	





8. Test Summary

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AC-51 Sect. ASTM		Property	Average Result	AC51-14 Criteria	Sample preparation	Quantity and size	
3.1/4.1	C567-14	Density	86.5 lbs / ft ^{3 (at 180} _{days)}	N/A	4"x8" Cylinder	5 specimens tested	
3.1.2	N/A	Unit Weight	8.6 lbs/ ft ²	< 15 lbs/ ft ²	Product-Stone Panel	5 specimens tested (full size veener 6"x23"x1")	
4.2	C1670-14 (Section 6)	Freeze-Thaw Durability (C666A cycles)	-1.3% (weight gain due to absorption)	=1.5% mass<br loss and no fracture through cross section after 50 cycles	Cast prisms >28 days age (#4200)	5 cast Specimens tested - 3"x3"x11" (See report C1670-030317- 12167-4200 for more detail)	
4.3	C39-12	Compressive Strength	5,465 psi (at 180 days)	> 1800 psi	4"x8" Cylinder	5 specimens tested	
4.4	C348-14	Flexural Strength	660 psi (at 180 days)	N/A	Cut from prism (#4111)	5 specimens tested 1.57"x1.57"x6.3"	
4.5	C190-85	Tensile Strength	425 psi (at 28 days)	N/A	Cast Briquettes using client mix design	6 specimens cast and tested by approved subcontractor	
4.6	N/A	Absorption	14% (at 180 days)	<18%	Cut from Stone panel	10 specimens tested 4"x4"x1"	
4.7	C482-02	Shear Bond Strength	83 psi (at 7 days)	> 50 psi	Cut from Stone panel	5 specimens tested 4"x4"x1"	

9. Statement of Compliance

For informational purposes only. Test plan per customer instruction per approved proposal

10. Notes

1 The client is authorized to reproduce or distribute the report only if reproduced in its entirety.

2 The results presented relate only to the items &/or materials tested.

3 AC 51 procedures were modified at the clients direction (Mihai Gavris - August 2016). Modifications included: Samples cast by others without 3rd party witness or material traceability (millcerts, etc) Samples cured by others. Per client, curing conditions = 9 hours at 89°F & 100% Relative Humidity. Test performed at non-standard test ages. All results for samples aged > 180 days Samples were not cast to shape. Samples saw cut from cylinders, prisms and cubes cast by manufacturer Shear bond test performed using 0.5" thick, Quickrete AVM mortar bond per client. Substrate cast from same veneer sample bond substrate material.

4 C190 test subcontracted.





Attachment 1 - Chain of Custody 4111

*Samples picked up by ATG from Glen Gery (Address: 433 S. Pottsville Pike, Shoemakersville, PA, 19555) on 8/9/2016

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Applied Testing & Geosciences, LLC When Quality Counts

Document No. COC-081616-12167-01 ATG-ID 4111-1 Date Received: 08/16/2016

Lab Chain of Custody - Sample Submittal Form

1. Client

4111-3

4111-4

n enem													
Company N	lame	Co	Company Address			Projec	t Na	ame		Facility Location			
LLC S			1 Rue Albert Einstein, 77480 Bra Sur - Seine, France			12167 Modulo - Precast Stone Veneer				Turda, Romania			
		Ph	Phone Fa		Fax		ct E	-Mail		PO#			
Mihai Gavris (3		(33	31) 606-78413			mihai.	gav	ris@modulo.	fr	Precast Stone	Precast Stone Veneer		
2. Shippin	g / Delivery					·							
# Samples	Carrier		Track #		nip ate / Time	Receipt Date / Time				Shipped By	Sample As Received		
5	See attachment		See attachmer	e attachment		08/16/20 09:57			ims		Intact		
3. Sample	Identificatio	n									-		
ATG ID	Photo Client I) Material			Description / Notes		Qty Size Weig		Reqd Storage Temp (F)	Reqd Storage RH (%)		
4111-1	SEE		Concrete		Veneer Stone (4"x4"x1")		10	10 Piece 0.8		No Requirement	No Requirement		
4111-2	BEEN	HERN			Cast Cut (4"x4"x4"			2 Piece 0.5		Not Specified	Not Specified		

Cast Cylinders (4"(diameter) x 8")

3"x3"x10" Cast Prisms

10 Piece

6 Piece

15

12

Not Specified

Not Specified

Not Specified

Not Specified



Other

Concrete

Photo 1 Fabrik Stone Veener

9/21/16 shipment & Mix Design

ATG #	Material	Qty	per cubic meter
4111-1	Sand	1 bag	340 kg
4111-2	Argila (Clay)	3 bags	454 kg
4111-3	Ciment ALB	2 bags	410 kg
4111-7	Master Glenium 115	2 liter	2.3 kg
NP	Water	NP	300 kg





Attachment 2 - Chain of Custody 4200



Applied Testing & Geosciences, LLC When Quality Counts

Document No. COC-030317-12167-02 ID-ATG 4200-1 Date Received: 03/03/2017

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Lab Chain of Custody - Sample Submittal Form

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Company N	lame		Comp	any Address	5	Facility Lo	Facility Location			
Modulo Deo LLC	corative Solu			cembrie NR 1788, Romar	29, Turda, Clug nia	ı.			12167 Modulo Veneer	- Precast Stone
Contact Na	me		Phone	Phone Fax			-Mall		PO#	
Mihai Gavris					mihal.gav	ris@n	nodulo.fr	Precast Stone Veneer		
2. Shippin	g / Deliver	y								
# Samples	Carrier Track #		Track #		Ship Date	Receipt Date	Reci	elved By	Shipped By	Sample As Received
				03/03/2017	Briar	Brian Shenk		Intact		
3. Sample	Identifica	tion								
ID-Client	-			Material	Visual Description	Notes		Quantity	Reqd Storage Temp (F)	Reqd Storage RH (%)
1/26/17 FT Bars	4200-1	200-1 Concrete		Concrete	Concrete prisms (3"x3"x11")			5 Bar(s)	No Requirement	No Requirement
4. Sample	Collection	'n			•					
ID-Client	ID-ATG	Assemi Date			Name of Sampler	Method Sampled			Sample Retention	Sample Disposal
1/26/17 FT Bars	4200-1		(01/26/2017		Not Provide	Not Provided		90 days	Discard w Charge
5. Tests										
Quantity	Test ID		Test T	itie						
6. Additio	nal Inform	ation								
Attachment	5									
20170303_ 20170303_	142643.jpg; 143311.jpg;	2017030 doc0072	3_142 22201	849.jpg; 201 7030314518	170303_143151 50.pdf	1.jpg; 2017030	3_142	2700.jpg; 201	70303_143036.jpg;	:
7. Signatu	ires									
Received B	у									
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END OF REPORT

