

# OLD MILL BRICK FIRE TEST REPORT

## SCOPE OF WORK

NFPA 285 TESTING ON EXTERIOR NON-LOAD-BEARING WALL ASSEMBLY CONTAINING OLD MILL BRICK'S PANEL+ INSULATED THIN BRICK VENEER SYSTEM

## REPORT NUMBER

G104002492SAT-003 R1

## TEST DATE(S)

11/12/19

## ISSUE DATE

12/17/19

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02/20/20

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## PAGES

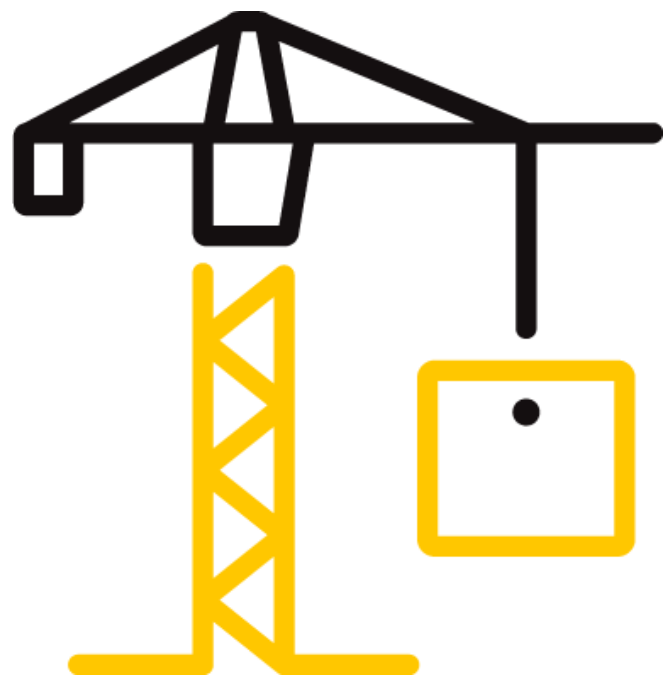
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## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

### REPORT ISSUED TO

**Old Mill Brick**  
14674 S 800 W,  
Bluffdale, UT 84065

### SECTION 1

#### SCOPE

Intertek Building & Construction (B&C) was contracted by Old Mill Brick, 14932 S Concord Park Dr., Bluffdale, UT 84065, to evaluate the flame propagation characteristics of an exterior, non-load-bearing wall assembly containing Old Mill Brick's Panel+ Insulated Thin Veneer System. Testing was conducted at the Intertek B&C test facility in Elmendorf, Texas. Results obtained are tested values and were secured by using the designated test method(s). A summary of test results and the complete graphical test data is reported herein.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

### SECTION 2

#### SUMMARY OF TEST RESULTS


**Wall System:** Exterior Non-load-bearing Wall Assembly


**Combustible Components:** Old Mill Panel+ Type II Polystyrene Expanded (EPS), 3-in. thickness, 2 in. Old Mill Washer, Old Mill 6 in. Poly laminate Reinforcing Fabric, Old Mill 2-in. Bond Mesh, Old Mill Air & Water Barrier

#### NFPA 285 Test Results

The assembly described and tested in this report **did** meet the Conditions of Acceptance of NFPA 285. Construction of the full assembly is summarized in Section 7 of this test report.

For INTERTEK B&C:

<b>COMPLETED BY:</b>	Jon McMillan
<b>TITLE:</b>	Associate Engineer – Fire Testing
<b>SIGNATURE:</b>	
<b>DATE:</b>	12/17/19

<b>REVIEWED BY:</b>	Herbert W. Stansberry II
<b>TITLE:</b>	Program Manager, Building & Construction
<b>SIGNATURE:</b>	
<b>DATE:</b>	12/17/19

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## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

### SECTION 3

#### TEST METHOD

The assembly was evaluated in accordance with the following:

**NFPA 285-19**, *Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components*

### SECTION 4

#### MATERIAL SOURCE/INSTALLATION

The components of the test assembly were sampled by Chris Owens, an Intertek Representative, on August 20-21, 2019. Samples were received at the Evaluation Center on October 07, 2019 and given the Sample Tracking ID No. SAT1910071018-001.

### SECTION 5

#### LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Jon McMillan	Intertek B&C
Philip Casso	Intertek B&C
Garrick Hunsaker	Old Mill Brick
John Striednig	Old Mill Brick
Mollie Striednig	Old Mill Brick

### SECTION 6

#### TEST PROCEDURE

The wall assembly was instrumented with thermocouples (TCs) in accordance with figures 6.1(a) and 6.1(b) of NFPA 285 test method. 16-GA Type K TCs were used in the burn room and 24-GA Type K were used on exterior façade and cavity air space. The window burner was positioned in the center of the opening and 4 in. off the exterior face of the wall assembly. Testing was performed on November 12, 2019 in accordance with NFPA 285 test method. Ambient conditions were 56°F and 18% relative humidity. Video recording, digital photographs, visual observations, and data collection were performed prior, during, and after testing was completed. Temperature data was recorded every 15 seconds. The test was performed at 08:59 AM with the burners on for 30 minutes. All observations are recorded in the table located in Section 8.

The apparatus is considered to be under calibrated conditions when the time average temperatures and the time average heat flux readings obtained for a calibration wall match the requirements of Table 8.1.6 of NFPA 285. Calibration was performed with propane gas as the fuel source and the window burner placed 4 inches from the exterior surface of the assembly and

**TEST REPORT FOR OLD MILL BRICK**

Report No.: G104002492SAT-003.R1

Date: 12/17/19

vertically centred on the window opening. Table 6.1 of this section shows the average burner flow and heat flux. Table 6.2 shows the time average temperatures obtained during the calibration test. Table 6.3 shows a list of the calibrated equipment used for test.

**Table 6.1** Average Burner Output Information

TIME INTERVAL (MIN:SEC)	ROOM BURNER (SCFM)	WINDOW BURNER (SCFM)	2 FT FLUX (W/cm <sup>2</sup> )	3 FT FLUX (W/cm <sup>2</sup> )	4 FT FLUX (W/cm <sup>2</sup> )
0:00-5:00	16.2	0.0	1.3	0.9	1.3
5:00-10:00	16.2	5.9	2.5	1.9	1.8
10:00-15:00	16.2	6.7	2.9	2.2	2.2
15:00-20:00	17.2	7.6	3.8	2.8	3.1
20:00-25:00	17.1	8.5	4.5	3.2	3.4
25:00-30:00	17.7	8.6	4.7	3.6	3.4

**Table 6.2** Average Time Temperature Values for Calibration

TIME INTERVAL (MIN:SEC)	THERMOCOUPLE LOCATIONS							
	BURN ROOM (°F)	INT. WALL (°F)	1FT (°F)	2FT (°F)	3FT (°F)	4FT (°F)	5FT (°F)	6FT (°F)
0:00-5:00	1098	1082	556	711	660	610	500	489
5:00-10:00	1331	1332	924	971	927	886	749	734
10:00-15:00	1388	1398	1002	1020	977	938	805	777
15:00-20:00	1519	1538	1125	1122	1078	1029	900	880
20:00-25:00	1559	1598	1218	1249	1159	1090	971	940
25:00-30:00	1618	1686	1271	1310	1241	1158	1056	1005

**Table 6.3** Calibrated Equipment

Equipment	Equipment No.	Cal. Due Date
DAQ	99LE006	03/30/20
Thermo/Hygrometer	10340417	07/31/20
Stopwatch	181512633	08/10/20

**TEST REPORT FOR OLD MILL BRICK**

Report No.: G104002492SAT-003.R1

Date: 12/17/19

**SECTION 7****TEST ASSEMBLY DESCRIPTION****Interior Cladding**

The interior surface of the wall assembly was clad with 4 ft × 8 ft × 5/8 in. thick American Gypsum TYPE X gypsum board meeting the requirements of ASTM C1396. The gypsum board was fastened to the wall framing with #6 x 1-1/4 in. long, bugle head, self-drilling screws with a nominal spacing of 8 in. around the board perimeter and 12 in. in the field. Drywall orientation on the burn floor consisted of four pieces of gypsum board fastened to the core wall, with the run edge running parallel with the framing and the cut edge perpendicular to the framing. Drywall orientation on the second floor consisted of vertically oriented boards with the run edge running parallel with the framing and the cut edge perpendicular to the framing. Drywall orientation for the areas above the top support angle and below the bottom support angle consisted of boards that were oriented with the run edge perpendicular with the framing. The joints and fastener heads received a Level 2 finish using USG Sheetrock® Brand paper joint tape and USG Sheetrock® Brand joint compound.

**Framing**

The core wall consisted of 18 ft. long, 6 in. deep, 20 GA galvanized steel studs spaced 16 in. oc fastened to 13 ft. 4 in. long, 6 in. deep, 20 GA galvanized steel track as shown in Section 14. The studs were connected to the track with one #6 x 1/2 in. long self-drilling, pan head fastener per stud flange. Johns Manville MinWool® Safing pieces with a nominal density of 4.0 pcf were installed per the manufacturer's installation instructions to fit into each stud cavity placed at the second story floor line. The safing length dimensions were no less than the apparatus floor slab thickness of 8 in.

**Exterior Sheathing**

4 ft × 8 ft × 1/2 in. thick Densglass Gold Sheathing, was placed horizontally across the full exterior surface of the assembly. The gypsum sheathing was fastened to the wall framing with #6 x 1-1/4 in. long, bugle head, self-drilling screws with a nominal spacing of 8 in. around the board perimeter and 12 in. in the field.

**Weather Barrier**

Old Mill Poly laminate Reinforcing Fabric, embedded in Old Mill Air & Water Barrier, was applied to all corners on the base wall. Old Mill Air & Water Barrier was then applied over the exterior sheathing by roller to 10-mil WFT. It was then allowed to dry for at least 2 hrs.

**TEST REPORT FOR OLD MILL BRICK**

Report No.: G104002492SAT-003.R1

Date: 12/17/19

**Insulation Board**

Old Mill Brick Adhesive Mortar was applied to the Old Mill Air & Water Barrier surface using a notched steel trowel. Ribbons of adhesive were applied to the EPS insulation board to ensure they are vertical when the EPS insulation board was applied to the substrate. The board was then immediately set into place and pressure was applied over the entire surface of the board to insure positive uniform contact and high initial grab.

**Bond Mesh**

Old Mill 2 in. Bond Mesh strips were installed in the first, fifth, ninth and thirteenth course above the window to the extent of the first stud beyond the window on both sides of the window, attached with 2 in. Old Mill Washer and 4 in. Self-Drilling Zinc Plated screws.

**Mortar and Stone Veneer**

Old Mill Brick Adhesive Mortar was applied using a grout bag into the pre-molded courses in the Old Mill Panel+ EPS Insulating Board. Old Mill TB-27006CS Thin Brick Flats and Old Mill TBC-270206CS Thin Brick Corners were applied (not more than 15 lbs per square foot) before the mortar was able to dry. Type @ Mortar was then used to point the joints between the thin bricks using a grout bag, left to become thumbprint hard, then tooled with a concave jointer. The sample was then allowed to cure for a minimum of 28 days.

**Window Detail**

Steel L-angle, 0.040 in. thick; 4 in. deep with 3 in. leg (4 in. piece has a drip edge), was fastened with the 3 in. leg fastened to the wall at the top of the window opening, using 3/4 in. self-drilling screws. Old Mill Brick window header foam block was applied to the angle using a 1/2 in. bead of Old Brick Adhesive between the foam block/3 in. leg and foam block/4 in. leg junctions. The window was then coated (along with the rest of the wall) with Base Coat and Mesh around the edges.

**TEST REPORT FOR OLD MILL BRICK**

Report No.: G104002492SAT-003.R1

Date: 12/17/19

**SECTION 8**

**TEST OBSERVATIONS**

<b>TIME (Min:Sec)</b>	<b>EXTERIOR OBSERVATIONS</b>
00:00	Start time 08:59 a.m.
01:20	Flash over occurs
02:00	Window flashing warping
04:20	Light flaming on side of opening
05:00	Window burner lit
12:00	Brick veneer blackened with soot
15:30	Window header starts to flame slightly
24:00	Window header flaming slightly increasing; EPS melting visible
27:00	EPS continues to drip out; window header continues to flame
30:00	Furnace ceased; flaming continues at window header
35:00	Flaming continues; EPS continues to drip
39:00	Flaming continues; EPS continues to drip
40:00	Test Concluded

<b>TIME (Min:Sec)</b>	<b>SECOND FLOOR OBSERVATIONS</b>
00:00	Start time 08:59 a.m.
06:00	Light smoke from under beam
12:00	Light smoking continues
18:00	Smoke slightly increasing
25:00	Liquid visible at beam
30:00	Light smoke continues
36:00	Light smoke continues
40:00	Test ends

**TEST REPORT FOR OLD MILL BRICK**

Report No.: G104002492SAT-003.R1

Date: 12/17/19

**SECTION 9**

**TEST RESULTS**

TEST REQUIREMENTS	TEST RESULTS	PASS/FAIL
Flames did not reach 10 ft. above the window opening header.	Flames did not reach 10 ft. above the window opening header.	<b>PASS</b>
Flames did not reach a lateral distance of 5 ft. from the vertical centerline.	Flames did not reach a lateral distance of 5 ft. from the vertical centerline.	<b>PASS</b>
Flames did not propagate beyond the limits of the first story test room.	Flames did not propagate beyond the limits of the first story test room.	<b>PASS</b>
No visible flaming in the second story test room	No visible flaming in the second story test room.	<b>PASS</b>
TC's 11 and 14-17 (1000°F limit)	TC's 11 and 14-17 did not exceed their 1000°F limit.	<b>PASS</b>
TC's 18-19, 28, and 31-40 (1000°F limit)	TC's 18-19, 28, and 31-40 did not exceed their 1000°F limit.	<b>PASS</b>

**Section 10**

**Conclusion**

Intertek B & C (Elmendorf) performed a test for Old Mill Brick containing the Old Mill Panel+ Insulated Thin Brick Veneer System in accordance with **NFPA 285-19, Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components**. In conclusion, the assembly **met** the conditions of acceptance as outlined in the standard. Testing was completed on November 12, 2019.



## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

### Section 11

#### PHOTOGRAPHS



**Photo No. 1**  
**Materials Being Unwrapped**



**Photo No. 2**  
**Base Wall with WRB and Window Header**

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19



**Photo No. 3**  
**WRB Around Window**



**Photo No. 4**  
**EPS Application**

**TEST REPORT FOR OLD MILL BRICK**

Report No.: G104002492SAT-003.R1

Date: 12/17/19



**Photo No. 5**  
**Window Detail With EPS**



**Photo No. 6**  
**Stucco for EPS Installation**

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19



**Photo No. 7**  
**EPS Installed Over Wall**



**Photo No. 8**  
**Fastener Installation Through Panels**



**TEST REPORT FOR OLD MILL BRICK**

Report No.: G104002492SAT-003.R1

Date: 12/17/19



**Photo No. 9**  
**Fastener Heads With Mesh**



**Photo No. 10**  
**Fastener Installation**

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19



**Photo No. 11**  
**Brick Veneer Installation**



**Photo No. 12**  
**Brick Veneer Installed**

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19



**Photo No. 13**  
**Exterior Pre-Test**



**Photo No 14**  
**Exterior Pre-Window Burner**



## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19



**Photo No. 15**  
**Window Header Sagging**



**Photo No. 16**  
**Post Window Burner Ignition**



**TEST REPORT FOR OLD MILL BRICK**

Report No.: G104002492SAT-003.R1

Date: 12/17/19



**Photo No. 17**  
**Exterior View**



**Photo No. 18**  
**Exterior View**

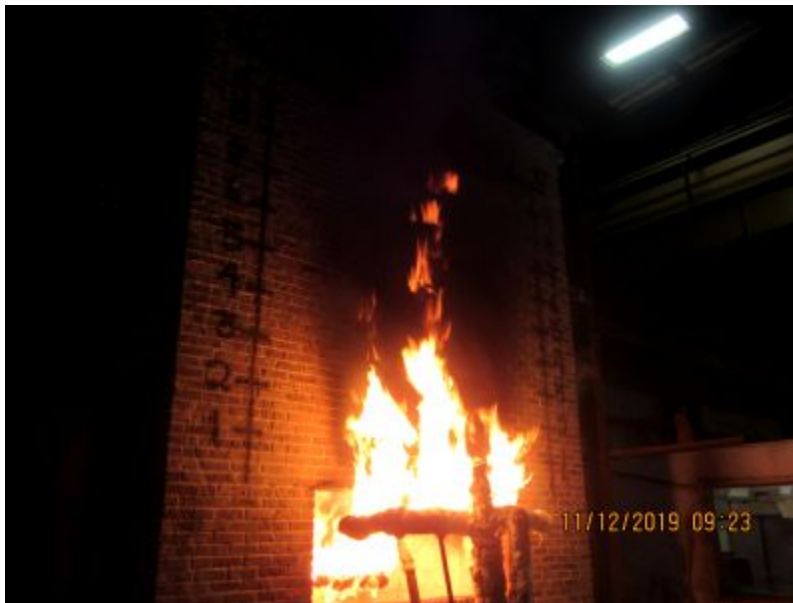
**TEST REPORT FOR OLD MILL BRICK**

Report No.: G104002492SAT-003.R1

Date: 12/17/19



**Photo No. 19**  
**Window Header Flaming**



**Photo No. 20**  
**Wall Face Slightly Flaming**

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19



**Photo No 21**  
**Exterior View**



**Photo No. 22**  
**Post-Test Flaming Continues**

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19



**Photo No. 23**  
**Post-Test**



**Photo No. 24**  
**Post-Test**

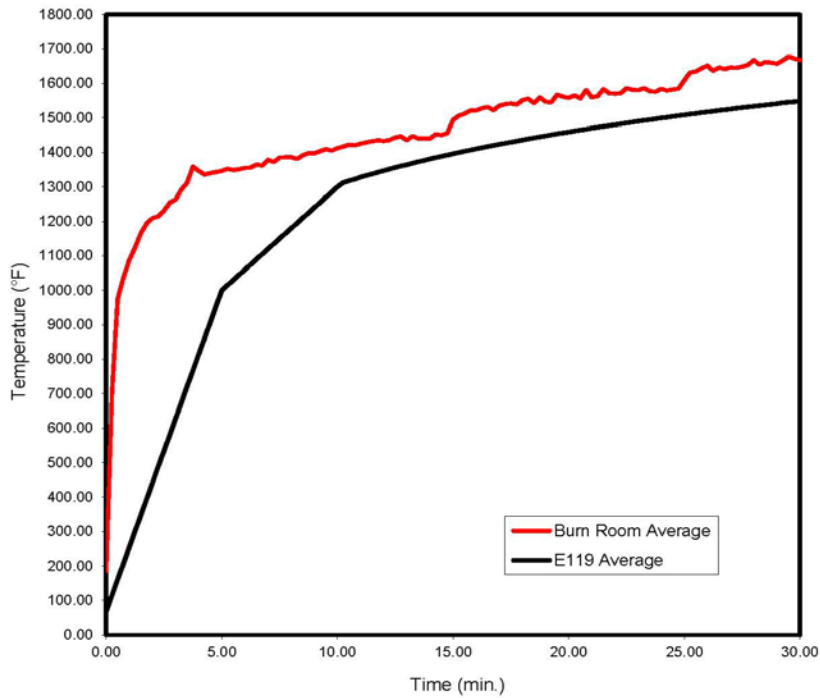
## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

### SECTION 12 GRAPHS

Old Mill Brick  
Project No. G104002492SAT-003  
November 12, 2019  
Burn Room Average



Graph No. 1

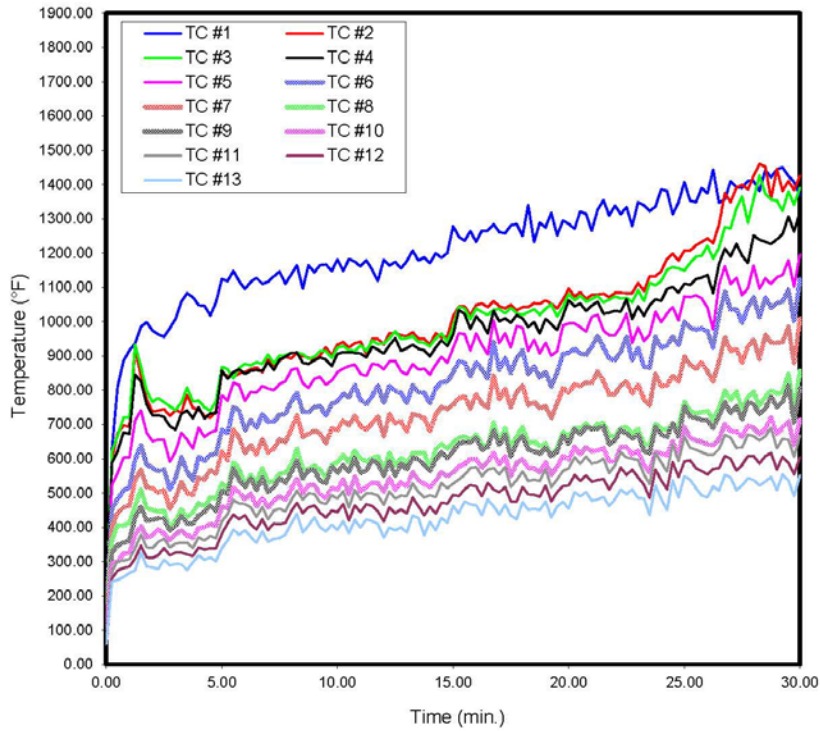


## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick  
Project No. G104002492SAT-003  
November 12, 2019  
Vertical Face  
TC 1-13



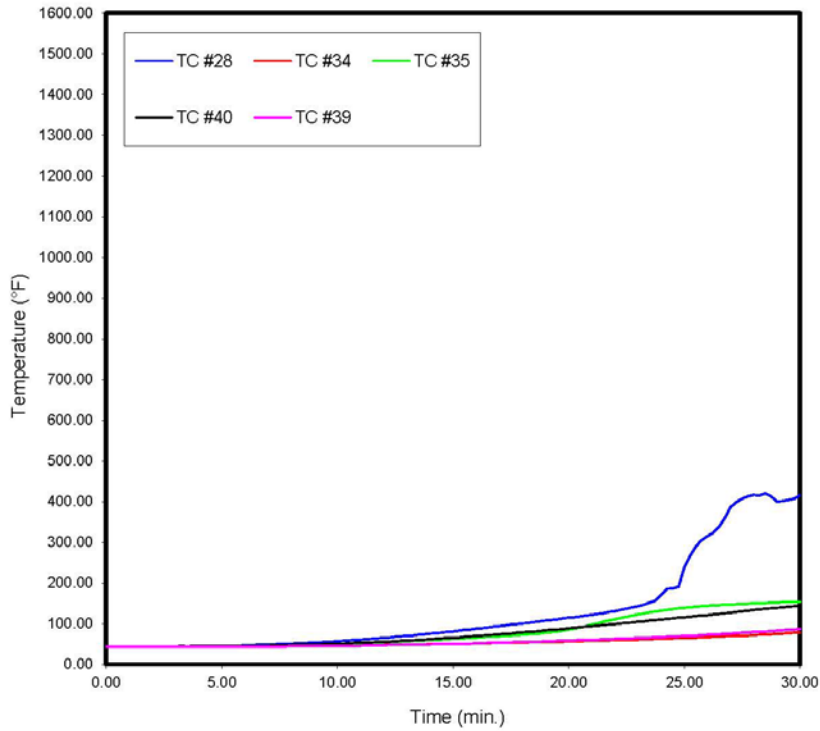
Graph No. 2

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick  
Project No. G104002492SAT-003  
November 12, 2019  
10-ft Air Cavity  
TC 28, 34, 35, 40, 39



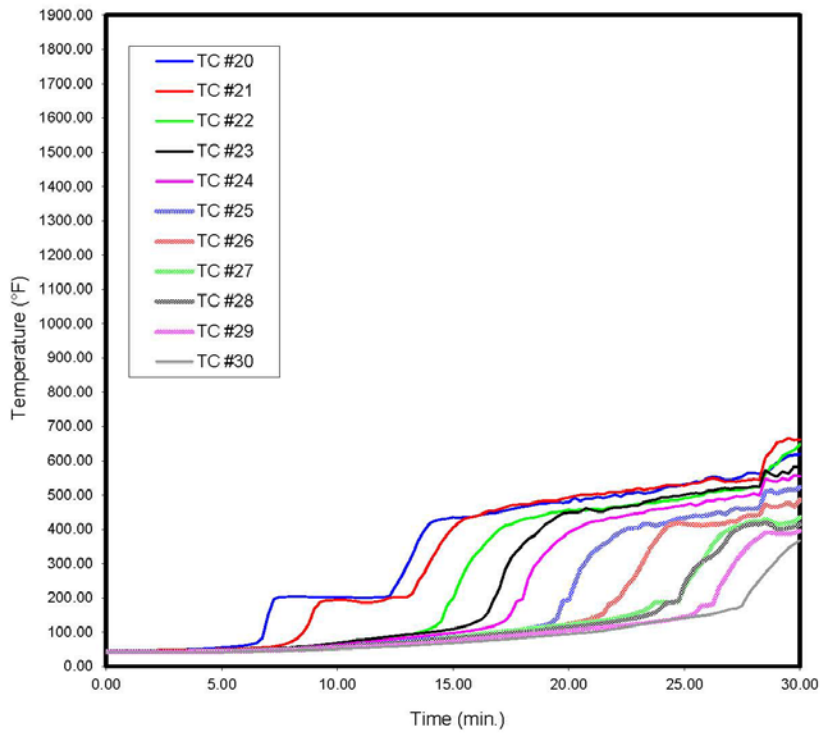
Graph No. 3

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick  
Project No. G104002492SAT-003  
November 12, 2019  
Vertical Air Cavity  
TC 20-30



Graph No. 4

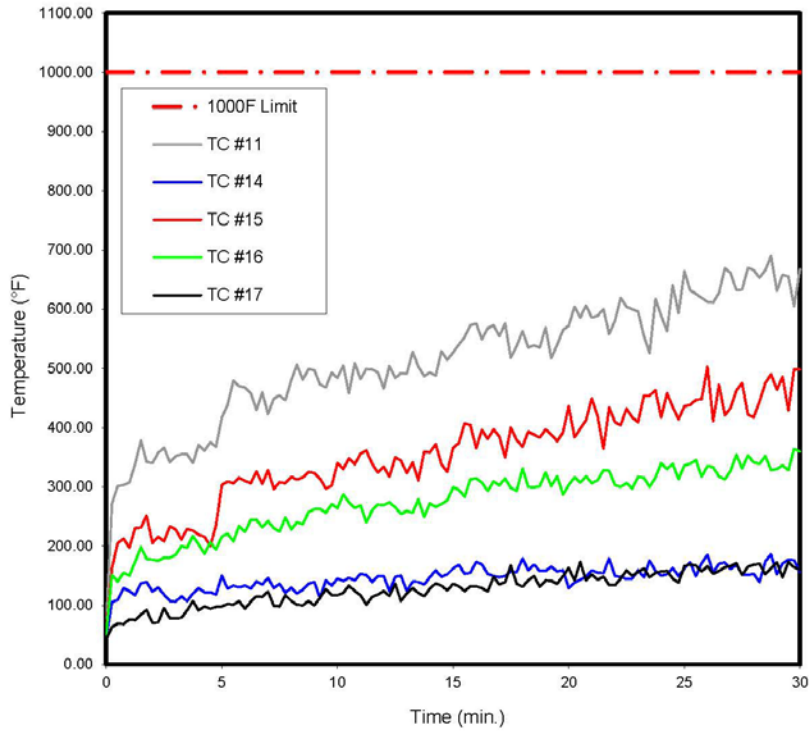


## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick  
Project No. G104002492SAT-003  
November 12, 2019  
10-ft Front Face  
TC 11, 14-17



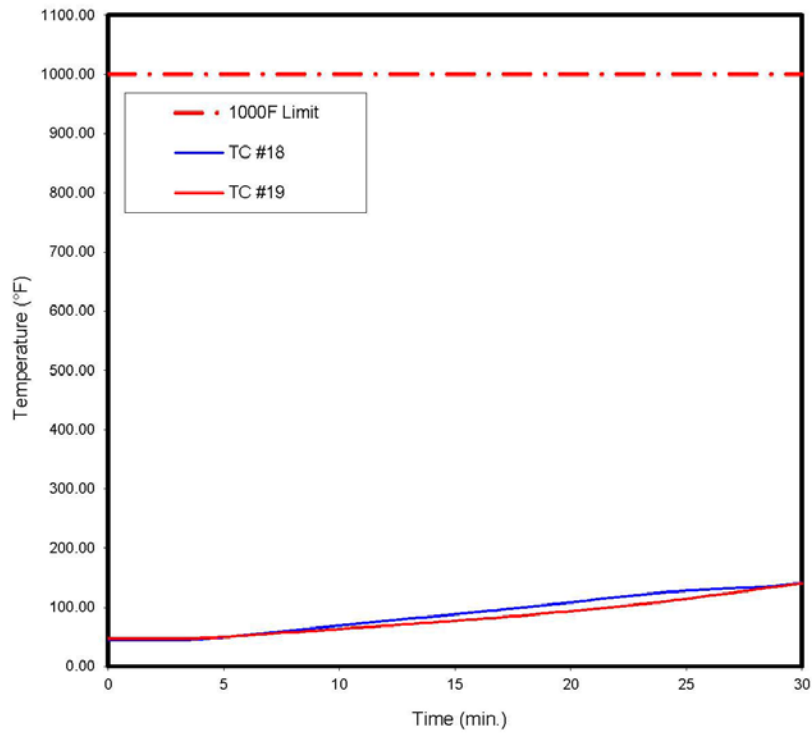
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## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick  
Project No. G104002492SAT-003  
November 12, 2019  
Air Cavity  
TC 18, 19



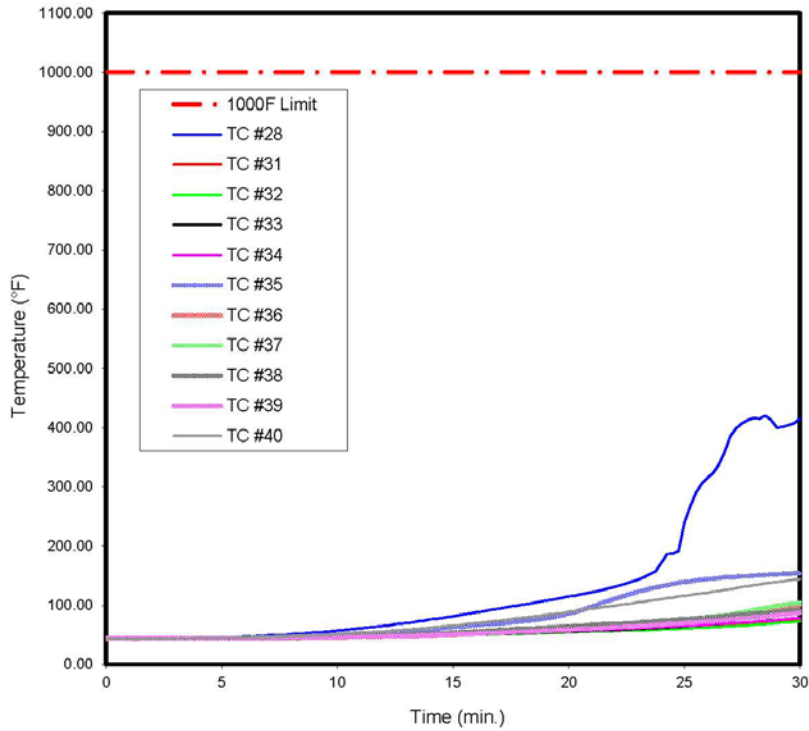
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## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick  
Project No. G104002492SAT-003  
November 12, 2019  
Air Cavity  
TC 28, 31-40



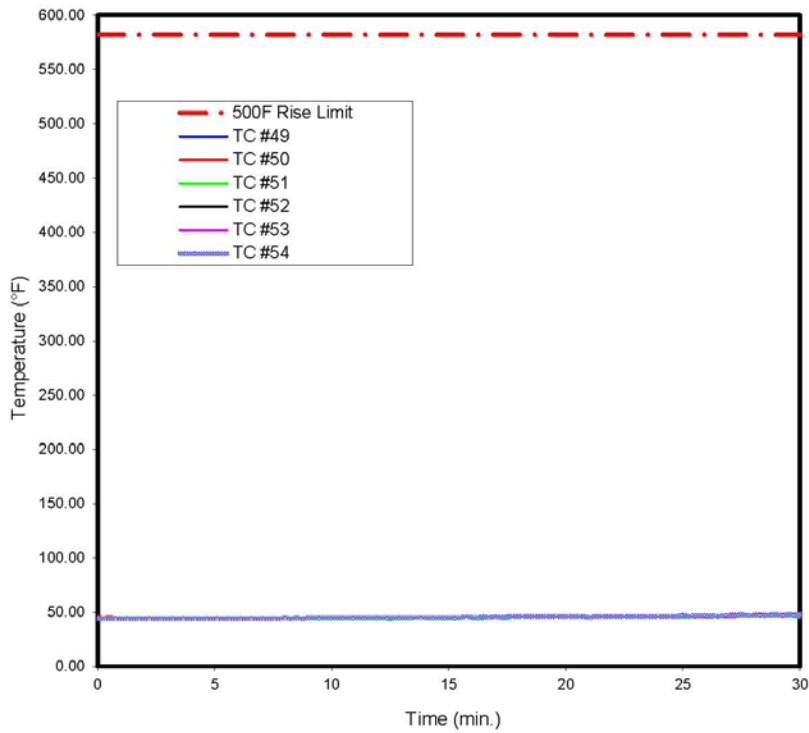
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## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick  
Project No. G104002492SAT-003  
November 12, 2019  
2nd Floor, 1-in from wall  
TC 49-54



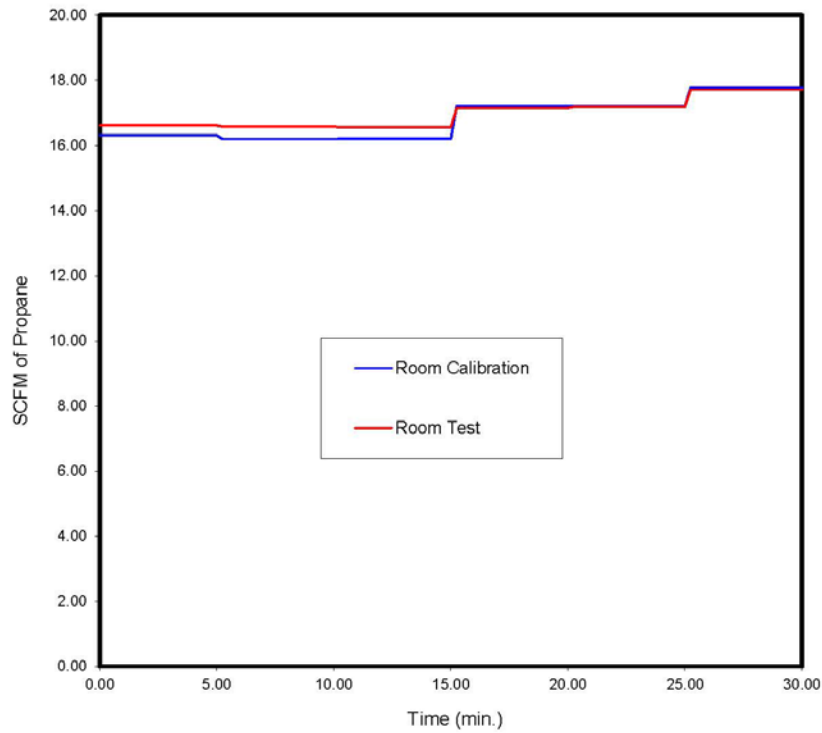
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## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick  
Project No. G104002492SAT-003  
November 12, 2019  
Room Burner Flow Rates



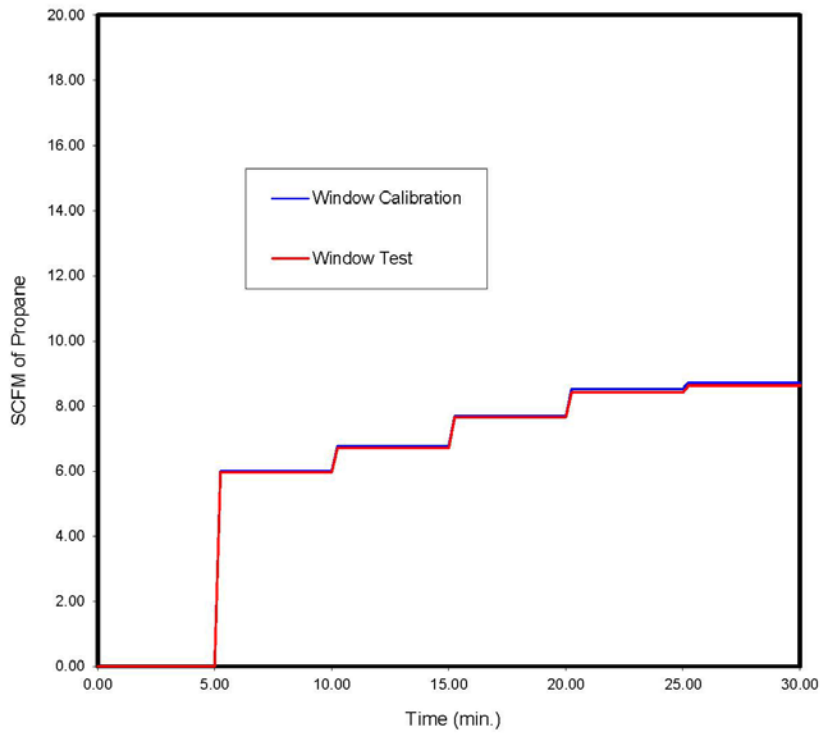
Graph No. 9

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick  
Project No. G104002492SAT-003  
November 12, 2019  
Window Burner Flow Rates



Graph No. 10



Total Quality. Assured.

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### TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

### SECTION 10 NUMERICAL DATA

Old Mill Brick

Project No. G104002492SAT-003

November 12, 2019

Burn Time (min)	Room (°F)	E119 Average (°F)	Pass/Fail												
			TC #1 (°F)	TC #2 (°F)	TC #3 (°F)	TC #4 (°F)	TC #5 (°F)	TC #6 (°F)	TC #7 (°F)	TC #8 (°F)	TC #9 (°F)	TC #10 (°F)	TC #11 (°F)	TC #12 (°F)	TC #13 (°F)
0.00	186	68	145	144	168	168	156	131	112	103	94	76	66	62	60
0.25	705.2	115	630	599	622	588	524	454	402	364	328	295	272	251	241
0.50	974.6	161	811	674	667	622	558	483	443	406	347	300	301	274	246
0.75	1038	208	885	697	720	677	603	508	457	405	355	324	303	281	255
1.00	1088	254	916	694	721	672	603	516	464	414	362	325	307	285	267
1.25	1124	301	936	923	933	846	711	598	537	461	429	377	338	309	274
1.50	1166	348	985	841	868	826	741	639	569	511	459	404	378	346	327
1.75	1194	394	998	774	799	759	676	583	518	456	420	371	342	312	285
2.00	1209	441	974	737	766	727	651	573	514	451	422	376	340	310	283
2.25	1214	487	963	740	777	727	655	564	501	446	426	393	357	318	278
2.50	1231	534	955	745	765	722	655	569	509	448	425	381	366	339	305
2.75	1255	581	981	725	753	695	591	511	454	396	390	362	341	318	289
3.00	1263	627	1008	742	742	685	621	543	485	420	404	380	352	326	293
3.25	1292	674	1058	735	764	731	675	605	532	452	433	391	355	326	292
3.50	1311	720	1083	786	807	741	656	563	499	429	411	377	355	321	275
3.75	1359	767	1071	748	767	718	630	538	494	444	411	369	340	316	298
4.00	1346	814	1048	743	770	750	690	606	544	470	434	397	371	341	318
4.25	1336	860	1046	725	750	718	664	594	540	462	445	400	361	335	305
4.50	1340	907	1018	720	740	732	677	611	567	487	462	409	375	339	312
4.75	1343	953	1057	739	768	733	682	614	557	484	448	404	368	339	301
5.00	1346	1000	1124	850	868	857	785	684	621	528	507	462	417	381	339
5.25	1352	1015	1118	842	861	834	769	675	596	511	496	455	438	411	361
5.50	1349	1030	1148	839	835	852	822	751	685	588	572	514	479	437	393
5.75	1351	1045	1118	849	865	861	815	741	662	571	539	502	470	424	378
6.00	1355	1060	1095	853	877	848	769	684	617	526	518	482	468	435	391
6.25	1356	1075	1116	861	872	857	795	711	639	553	544	498	458	408	372
6.50	1365	1090	1127	866	882	858	793	690	613	532	509	461	430	394	355
6.75	1361	1105	1110	852	877	856	812	731	658	572	545	486	459	423	388
7.00	1378	1120	1116	889	904	882	805	708	618	531	503	457	423	392	358
7.25	1372	1135	1132	872	878	859	800	709	630	535	518	477	449	411	366
7.50	1385	1150	1146	886	901	889	818	728	657	555	543	490	454	409	368
7.75	1386	1165	1110	898	902	898	826	731	648	560	530	481	446	413	379
8.00	1386	1180	1138	892	909	909	859	768	686	581	560	512	480	447	411
8.25	1381	1195	1164	910	910	910	864	792	726	630	595	542	506	471	439
8.50	1391	1210	1096	899	905	880	820	737	664	570	543	499	481	441	385
8.75	1398	1225	1164	895	891	877	807	736	672	569	567	523	499	458	405
9.00	1397	1240	1144	887	898	887	833	751	681	580	567	523	497	464	429
9.25	1403	1255	1164	901	914	895	839	754	674	568	536	496	473	443	400
9.50	1410	1270	1167	925	914	889	816	726	645	544	529	486	468	428	388
9.75	1405	1285	1147	902	894	870	828	760	688	583	577	515	493	449	407
10.00	1412	1300	1181	933	924	906	853	767	684	589	559	510	484	444	393
10.25	1417	1312	1148	941	929	911	863	790	711	611	581	540	505	468	418
10.50	1422	1317	1183	925	916	911	870	780	698	589	562	496	458	420	383
10.75	1421	1323	1175	937	915	909	875	814	725	623	603	548	509	464	422
11.00	1425	1328	1161	942	931	907	848	772	694	602	559	505	482	444	399
11.25	1429	1333	1179	906	914	896	842	760	686	591	567	518	499	467	423
11.50	1433	1337	1151	950	945	926	877	783	704	602	596	530	498	462	418
11.75	1435	1342	1119	949	935	918	875	813	724	608	586	529	493	447	410
12.00	1433	1347	1180	933	936	907	861	763	666	567	551	504	466	417	370
12.25	1436	1351	1163	966	951	931	884	812	729	616	592	543	504	458	399
12.50	1444	1356	1174	967	971	952	885	798	703	581	551	510	484	441	391

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick

Project No. G104002492SAT-003

November 12, 2019

Time (min)	Burn Room (°F)	E119 Average (°F)	TC #1 - TC #13 (°F)											Pass/Fail			
			TC #1	TC #2	TC #3	TC #4	TC #5	TC #6	TC #7	TC #8	TC #9	TC #10	TC #11	TC #12	TC #13	TC #11	TC #13
12.75	1447	1360	1155	960	949	915	855	793	709	602	585	531	492	452	400		
13.00	1435	1364	1176	958	952	922	846	763	680	586	570	520	491	441	385		
13.25	1448	1369	1207	969	958	933	876	815	730	616	604	561	528	487	434		
13.50	1440	1373	1178	950	940	921	861	794	726	616	598	537	503	462	427		
13.75	1441	1377	1187	950	939	916	862	792	719	617	581	527	487	435	377		
14.00	1440	1381	1171	934	928	899	846	762	681	573	565	518	493	460	416		
14.25	1453	1385	1199	966	951	924	875	806	729	627	597	536	488	440	392		
14.50	1450	1388	1186	954	965	946	897	823	751	643	618	561	529	472	427		
14.75	1456	1392	1200	956	941	929	880	825	745	629	601	549	514	469	414		
15.00	1495	1396	1278	1016	985	962	923	852	758	648	623	560	527	494	462		
15.25	1506	1400	1247	1044	1044	1034	966	884	776	661	644	577	540	491	441		
15.50	1512	1403	1236	1045	1038	1022	963	880	782	665	649	585	553	511	475		
15.75	1521	1407	1264	1018	1007	979	916	841	747	655	647	599	573	523	467		
16.00	1522	1410	1233	1049	1038	1015	965	881	788	671	661	599	576	519	464		
16.25	1528	1414	1265	1053	1028	997	932	860	761	643	626	574	549	490	435		
16.50	1531	1417	1265	1043	1020	965	905	835	749	634	635	591	568	529	481		
16.75	1522	1420	1284	1060	1034	1032	1003	941	843	705	683	617	573	510	461		
17.00	1535	1424	1261	1045	1037	1001	938	860	773	649	639	584	554	502	437		
17.25	1540	1427	1257	1039	1024	1010	966	894	802	688	671	608	576	517	466		
17.50	1542	1430	1281	1049	1040	997	925	851	751	631	606	549	518	476	434		
17.75	1538	1433	1284	1033	1024	1019	987	895	795	666	648	588	538	476	424		
18.00	1552	1436	1250	1042	1020	1010	982	916	814	693	667	599	563	517	473		
18.25	1555	1439	1340	1042	1028	984	915	847	756	645	627	573	535	496	451		
18.50	1543	1442	1232	1054	1036	999	947	869	765	650	622	573	539	494	454		
18.75	1559	1445	1288	1052	1020	966	908	838	748	637	615	561	535	489	450		
19.00	1546	1448	1275	1062	1038	1008	938	852	753	644	633	589	569	521	475		
19.25	1545	1451	1317	1052	1051	992	901	811	719	610	608	553	517	476	428		
19.50	1567	1454	1251	1039	1015	976	914	852	761	631	622	577	540	502	461		
19.75	1562	1457	1295	1064	1043	1018	989	906	806	678	667	608	565	520	474		
20.00	1558	1459	1285	1096	1081	1062	995	910	793	666	643	597	572	522	455		
20.25	1565	1462	1271	1073	1062	1045	995	920	817	690	687	634	604	552	502		
20.50	1557	1465	1321	1086	1076	1053	984	907	813	689	672	614	586	535	490		
20.75	1581	1467	1314	1066	1058	1032	972	904	822	703	693	633	606	551	502		
21.00	1559	1470	1265	1078	1066	1047	1014	927	821	685	688	622	586	533	478		
21.25	1563	1473	1326	1079	1075	1058	1020	958	854	701	688	624	589	538	481		
21.50	1583	1475	1354	1082	1056	1023	974	924	826	704	694	631	600	541	488		
21.75	1572	1478	1309	1071	1064	1026	960	893	788	668	642	592	558	510	462		
22.00	1570	1480	1338	1084	1073	1032	960	888	789	665	653	592	581	537	482		
22.25	1572	1483	1313	1084	1067	1029	985	912	814	689	684	634	619	574	510		
22.50	1587	1485	1334	1083	1070	1065	1023	955	825	692	673	635	604	553	496		
22.75	1581	1488	1279	1083	1057	1008	938	888	791	672	659	612	600	568	511		
23.00	1580	1490	1348	1113	1092	1044	982	923	816	686	670	623	596	546	485		
23.25	1587	1493	1339	1089	1061	1017	944	868	774	644	623	581	554	524	484		
23.50	1578	1495	1322	1132	1113	1048	962	866	757	640	616	561	526	486	436		
23.75	1576	1497	1336	1132	1106	1065	1029	956	848	702	693	620	617	569	522		
24.00	1584	1499	1386	1147	1118	1061	999	924	812	686	670	614	589	537	483		
24.25	1580	1502	1381	1183	1151	1095	1024	931	814	685	664	610	563	511	451		
24.50	1582	1504	1313	1198	1159	1101	1042	956	842	703	703	651	641	590	537		
24.75	1585	1506	1348	1178	1155	1085	1004	932	825	694	665	611	593	547	487		
25.00	1610	1508	1407	1207	1149	1111	1074	1000	898	766	752	692	664	592	549		
25.25	1632	1511	1353	1207	1171	1107	1071	982	874	739	723	661	632	595	539		





Total Quality. Assured.

16015 Shady Falls Road  
Elmendorf, Texas 78112

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**TEST REPORT FOR OLD MILL BRICK**

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick

Project No. G104002492SAT-003

November 12, 2019

Time (min)	Burn Room (°F)	E119 Average (°F)	Pass/Fail												
			TC #1 (°F)	TC #2 (°F)	TC #3 (°F)	TC #4 (°F)	TC #5 (°F)	TC #6 (°F)	TC #7 (°F)	TC #8 (°F)	TC #9 (°F)	TC #10 (°F)	TC #11 (°F)	TC #12 (°F)	TC #13 (°F)
25.50	1635	1513	1348	1222	1189	1124	1077	976	863	732	719	654	626	573	514
25.75	1644	1515	1390	1232	1192	1128	1068	981	881	736	714	650	619	564	493
26.00	1652	1517	1374	1243	1221	1136	1041	972	854	739	712	642	612	554	487
26.25	1637	1519	1443	1229	1184	1083	977	925	826	713	690	639	611	570	519
26.50	1647	1521	1346	1283	1216	1168	1109	1019	883	748	725	658	628	573	507
26.75	1642	1523	1357	1375	1276	1213	1161	1087	954	799	765	701	669	608	553
27.00	1647	1525	1409	1348	1272	1190	1110	1035	915	772	733	681	661	600	546
27.25	1646	1527	1391	1391	1330	1227	1127	1036	920	796	753	678	632	566	508
27.50	1649	1529	1390	1399	1365	1192	1077	997	881	746	716	664	633	582	521
27.75	1654	1531	1411	1386	1289	1171	1097	1043	929	781	765	697	670	608	544
28.00	1669	1533	1410	1425	1357	1251	1163	1071	947	794	759	690	666	608	538
28.25	1655	1535	1381	1460	1426	1239	1096	1013	892	755	730	671	653	586	521
28.50	1663	1537	1442	1452	1373	1233	1126	1069	961	781	746	687	666	608	534
28.75	1661	1539	1421	1358	1356	1226	1110	1041	939	799	782	720	690	617	547
29.00	1658	1541	1444	1445	1353	1240	1129	1054	938	790	751	673	631	569	508
29.25	1667	1543	1450	1381	1323	1255	1136	1059	941	793	766	691	658	606	554
29.50	1678	1545	1425	1410	1379	1307	1179	1093	985	848	813	710	655	588	537
29.75	1673	1547	1407	1384	1341	1263	1102	1002	879	743	705	640	605	555	491
30.00	1668	1549	1369	1426	1390	1319	1195	1123	1009	856	806	714	667	604	551
Max Temp			1450	1460	1426	1319	1195	1123	1009	856	813	720	690	617	554
Max Allowed													1000		



Total Quality. Assured.

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### TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick

Project No. G104002492SAT-003

November 12, 2019

Time (min)	Pass/ Fail	Pass/ Fail	Pass/ Fail	Pass/ Fail	Pass/ Fail	Pass/ Fail	TC #20 (°F)	TC #21 (°F)	TC #22 (°F)	TC #23 (°F)	TC #24 (°F)	TC #25 (°F)	TC #26 (°F)	TC #27 (°F)
	TC #14 (°F)	TC #15 (°F)	TC #16 (°F)	TC #17 (°F)	TC #18 (°F)	TC #19 (°F)								
0.00	45	55	51	42	45	47	47	46	45	45	44	44	44	44
0.25	105	163	151	63	45	47	47	46	45	45	44	44	44	44
0.50	109	205	140	69	45	47	47	46	45	45	44	44	44	44
0.75	129	212	155	68	45	47	47	46	45	45	44	44	44	44
1.00	124	197	150	76	45	47	47	46	45	45	44	44	44	44
1.25	117	230	173	75	45	47	47	46	45	45	44	44	44	44
1.50	137	231	198	84	45	47	47	46	45	45	44	44	44	44
1.75	139	251	178	92	45	47	47	46	45	45	44	44	44	44
2.00	123	205	177	70	45	47	47	46	45	45	44	44	44	44
2.25	130	216	175	71	45	47	47	47	45	45	44	44	44	44
2.50	118	208	180	95	45	47	48	47	45	45	44	44	44	44
2.75	107	233	180	78	45	47	48	47	45	45	44	44	44	44
3.00	106	228	185	78	45	47	48	47	45	45	44	44	44	44
3.25	115	211	200	79	45	47	48	47	45	45	44	44	44	44
3.50	107	229	197	91	45	47	49	47	45	45	44	44	44	44
3.75	120	226	217	107	46	47	50	47	45	45	45	45	44	44
4.00	129	219	203	91	46	48	50	48	46	46	45	45	45	45
4.25	122	216	187	98	47	48	51	48	46	46	45	45	44	45
4.50	122	200	206	94	48	48	52	48	46	46	45	45	45	45
4.75	118	235	194	97	48	49	53	49	47	46	46	45	45	45
5.00	150	303	216	98	49	50	55	49	47	47	46	45	45	45
5.25	128	309	221	102	50	50	56	50	47	47	46	46	45	45
5.50	133	306	208	101	51	51	58	50	48	48	47	46	46	46
5.75	130	315	234	107	52	52	59	51	48	48	47	46	46	46
6.00	133	310	224	94	53	52	61	52	49	49	48	47	46	46
6.25	128	306	244	106	54	53	64	53	49	49	48	47	47	47
6.50	140	326	244	115	55	54	68	54	50	50	49	48	47	47
6.75	135	305	232	114	56	54	83	55	50	51	49	48	47	47
7.00	146	328	242	123	57	55	149	56	51	52	50	48	48	48
7.25	129	296	230	99	58	56	196	58	52	52	51	49	48	48
7.50	136	308	224	98	59	57	203	61	53	54	52	50	49	49
7.75	121	306	248	117	60	57	203	65	54	54	52	50	49	49
8.00	130	317	228	107	61	58	204	72	55	55	54	51	50	50
8.25	120	312	240	101	62	58	204	81	56	57	54	51	50	50
8.50	126	316	237	100	63	59	204	97	57	58	55	52	51	51
8.75	136	325	257	107	64	60	203	122	59	59	57	53	52	52
9.00	139	323	262	100	65	60	203	168	60	61	57	53	53	52
9.25	112	314	263	113	66	61	203	187	61	62	59	54	53	53
9.50	142	297	256	127	67	62	203	192	63	65	60	55	54	54
9.75	133	302	271	117	68	62	203	193	65	66	61	56	55	54
10.00	145	340	264	117	69	63	203	194	67	69	63	57	56	55
10.25	141	330	287	121	70	64	203	195	68	71	64	58	57	56
10.50	146	348	274	133	71	65	202	192	70	73	66	59	58	57
10.75	142	338	264	124	72	65	201	190	72	76	68	60	59	58
11.00	153	356	269	117	73	66	200	187	74	78	70	62	60	59
11.25	151	361	240	101	74	67	200	187	76	79	71	63	61	60
11.50	139	339	260	114	75	67	201	187	78	81	73	64	62	61
11.75	149	324	270	118	76	68	203	189	80	83	75	65	63	62
12.00	149	334	269	124	77	69	203	193	82	85	77	67	65	63
12.25	124	317	274	116	78	69	204	200	84	87	79	69	66	64
12.50	148	350	265	136	79	70	233	202	86	89	80	70	67	66

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick

Project No. G104002492SAT-003

November 12, 2019

Time (min)	Pass/ Fail	Pass/ Fail	Pass/ Fail	Pass/ Fail	Pass/ Fail	Pass/ Fail	TC #20 (°F)	TC #21 (°F)	TC #22 (°F)	TC #23 (°F)	TC #24 (°F)	TC #25 (°F)	TC #26 (°F)	TC #27 (°F)
	TC #14 (°F)	TC #15 (°F)	TC #16 (°F)	TC #17 (°F)	TC #18 (°F)	TC #19 (°F)								
12.75	150	344	254	107	80	71	259	202	89	91	82	72	68	67
13.00	124	323	259	120	81	71	293	202	92	93	84	74	70	69
13.25	140	341	256	129	82	72	327	213	94	94	85	75	71	70
13.50	139	311	279	121	83	73	367	248	99	96	87	77	73	72
13.75	135	359	249	115	83	73	396	272	103	98	89	78	74	74
14.00	147	358	272	128	84	74	418	305	110	100	90	80	76	76
14.25	159	372	266	137	85	75	425	333	118	102	92	81	77	78
14.50	148	338	271	133	86	76	429	362	132	104	94	83	79	81
14.75	152	325	277	125	87	76	431	385	179	107	96	84	80	83
15.00	162	366	299	136	88	77	435	405	198	109	97	86	82	85
15.25	168	374	295	132	89	78	433	419	240	113	99	87	83	87
15.50	153	407	283	124	90	79	436	431	277	117	102	89	85	89
15.75	155	404	313	132	91	79	435	435	307	122	104	90	87	91
16.00	173	365	314	132	92	80	439	438	328	130	107	91	88	93
16.25	169	396	307	129	93	81	443	444	345	138	110	93	90	95
16.50	153	381	293	123	94	81	446	453	366	155	114	95	92	97
16.75	149	397	309	148	94	82	447	453	382	194	118	96	93	99
17.00	147	385	302	135	96	83	451	458	399	226	125	98	95	101
17.25	149	350	314	139	97	84	454	464	411	281	133	100	97	103
17.50	157	400	298	167	98	85	458	470	414	314	153	102	99	105
17.75	156	379	293	136	99	85	462	472	422	336	189	104	101	106
18.00	179	368	331	131	100	86	465	474	428	354	196	107	103	108
18.25	159	393	300	142	101	87	468	473	432	372	255	110	105	110
18.50	168	388	299	149	102	88	472	478	434	381	291	113	107	112
18.75	158	383	301	131	103	89	475	482	439	398	311	117	109	113
19.00	158	397	324	142	104	90	475	483	443	415	332	121	112	115
19.25	165	388	301	141	105	91	479	483	449	424	347	126	114	117
19.50	157	377	318	136	106	92	479	484	450	437	365	142	117	119
19.75	159	392	287	149	107	92	478	489	453	447	377	191	120	120
20.00	129	436	303	163	108	93	479	492	457	449	391	194	124	122
20.25	138	384	316	142	109	94	491	497	454	449	399	240	127	124
20.50	143	398	307	173	110	95	483	500	458	451	407	282	131	126
20.75	148	413	318	142	111	96	489	501	454	461	416	307	135	128
21.00	159	449	306	152	113	97	489	501	460	456	422	330	141	130
21.25	155	419	311	143	114	98	494	504	459	452	424	343	146	132
21.50	154	364	328	148	115	99	491	502	457	452	426	356	155	134
21.75	179	434	327	134	116	100	495	509	464	459	433	365	181	137
22.00	149	409	303	134	117	101	501	509	466	464	433	382	189	140
22.25	148	404	300	145	118	102	495	509	466	464	437	392	205	143
22.50	144	432	306	159	119	103	505	513	470	465	441	402	234	147
22.75	145	417	297	150	120	104	505	513	471	470	444	403	250	151
23.00	159	409	317	156	121	105	509	520	475	470	446	404	278	157
23.25	147	454	315	162	122	106	505	515	476	479	449	416	309	162
23.50	175	454	300	147	123	107	507	518	478	483	456	416	342	174
23.75	158	463	316	155	124	108	511	520	478	486	458	410	365	187
24.00	150	417	340	157	125	109	517	524	482	492	459	415	388	187
24.25	152	458	330	158	126	110	523	529	483	492	461	418	407	188
24.50	163	435	339	145	126	112	524	528	486	496	465	425	416	188
24.75	149	414	313	138	127	113	526	528	486	497	468	432	419	189
25.00	162	436	336	166	128	114	531	527	490	501	470	433	416	234
25.25	172	438	339	169	129	115	533	533	492	504	475	437	414	257

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick

Project No. G104002492SAT-003

November 12, 2019

Time (min)	Pass/ Fail	Pass/ Fail	Pass/ Fail	Pass/ Fail	Pass/ Fail	Pass/ Fail	TC #20 (°F)	TC #21 (°F)	TC #22 (°F)	TC #23 (°F)	TC #24 (°F)	TC #25 (°F)	TC #26 (°F)	TC #27 (°F)
	TC #14 (°F)	TC #15 (°F)	TC #16 (°F)	TC #17 (°F)	TC #18 (°F)	TC #19 (°F)								
25.50	149	447	345	167	129	117	540	534	497	506	469	440	413	280
25.75	171	448	317	157	130	118	539	538	498	505	476	439	411	300
26.00	185	503	335	166	130	120	549	546	508	512	484	441	413	331
26.25	155	411	333	153	131	121	553	549	509	513	483	445	415	357
26.50	170	472	317	158	131	122	551	545	510	517	488	450	415	379
26.75	172	421	313	164	132	123	544	539	515	520	486	444	417	393
27.00	161	433	327	166	132	124	544	540	515	517	490	455	423	401
27.25	168	463	354	171	133	126	548	539	514	521	496	462	423	409
27.50	152	475	331	151	133	127	553	542	516	520	495	458	435	412
27.75	151	422	353	165	133	128	564	544	520	521	498	460	440	420
28.00	153	417	341	168	134	130	564	546	521	525	505	459	440	423
28.25	139	444	339	170	134	131	562	545	523	523	499	462	442	422
28.50	174	475	352	152	135	133	566	609	561	572	547	510	473	430
28.75	186	490	328	162	135	134	576	626	583	560	542	512	466	423
29.00	152	464	330	172	137	135	594	653	589	553	539	505	465	415
29.25	170	486	336	147	138	136	604	656	614	568	548	511	470	416
29.50	177	429	328	173	139	138	614	666	623	562	544	516	478	419
29.75	176	498	364	164	140	139	617	660	631	583	557	515	466	422
30.00	156	498	359	160	141	140	619	662	648	580	554	522	486	435
<b>Max Temp</b>	186	503	364	173	141	140	619	666	648	583	557	522	486	435
<b>Max Allowed</b>	1000	1000	1000	1000	1000	1000								

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick

Project No. G104002492SAT-003

November 12, 2019

Time (min)	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	TC #41
	TC #28 (°F)	TC #29 (°F)	TC #30 (°F)	TC #31 (°F)	TC #32 (°F)	TC #33 (°F)	TC #34 (°F)	TC #35 (°F)	TC #36 (°F)	TC #37 (°F)	TC #38 (°F)	TC #39 (°F)	TC #40 (°F)	TC #41 (°F)	
0.00	44	42	41	44	45	44	44	44	43	44	44	44	44	44	155
0.25	44	42	41	44	45	45	44	44	44	44	44	44	44	44	642
0.50	44	42	41	44	45	45	44	44	44	44	44	44	44	44	894
0.75	44	42	41	44	45	44	44	44	44	44	44	44	44	44	994
1.00	44	42	41	44	45	45	44	44	44	44	44	44	44	44	1089
1.25	44	42	41	44	45	45	44	44	43	44	44	44	44	44	1139
1.50	44	42	41	44	45	44	44	44	44	44	44	44	44	44	1207
1.75	44	42	41	44	45	45	44	44	44	44	44	44	44	44	1242
2.00	44	42	41	44	45	45	44	44	44	44	44	44	44	44	1266
2.25	44	42	41	44	45	45	44	44	44	44	44	44	44	44	1289
2.50	44	42	41	44	45	45	44	44	44	44	44	44	44	44	1313
2.75	44	42	41	44	45	45	44	44	44	44	44	44	44	44	1340
3.00	44	42	41	44	45	45	44	44	44	44	44	44	44	44	1352
3.25	44	42	41	44	45	45	44	44	44	44	44	44	44	45	1398
3.50	44	42	41	44	45	45	44	44	44	44	44	44	44	44	1391
3.75	44	43	41	44	45	45	44	44	44	44	44	44	44	45	1430
4.00	45	43	42	44	45	45	44	44	44	44	44	44	44	45	1401
4.25	45	43	42	44	45	45	44	44	44	44	44	44	44	45	1412
4.50	45	43	42	44	45	45	44	44	44	44	44	44	44	45	1424
4.75	45	43	42	44	45	45	44	44	44	44	44	44	44	45	1434
5.00	45	43	42	44	45	45	44	44	44	44	44	44	44	45	1416
5.25	46	44	42	44	45	45	44	45	44	44	44	44	44	45	1447
5.50	46	44	43	44	45	45	44	45	44	44	44	44	44	45	1433
5.75	46	44	43	44	45	45	44	45	44	44	44	44	44	46	1436
6.00	47	45	43	45	45	45	44	45	44	44	44	44	44	46	1453
6.25	47	45	43	45	45	45	44	45	44	44	44	44	44	46	1442
6.50	48	46	44	45	45	45	44	46	44	44	44	44	44	46	1460
6.75	48	46	44	45	45	45	45	46	44	44	44	44	44	46	1455
7.00	49	46	45	45	45	45	45	46	44	44	44	44	44	46	1445
7.25	49	47	45	45	45	45	45	46	44	44	45	44	47	1433	
7.50	50	47	45	45	46	46	45	47	44	44	45	44	47	1454	
7.75	50	48	46	45	46	46	45	47	44	44	45	44	47	1456	
8.00	51	48	46	45	46	46	45	47	44	44	45	45	48	1463	
8.25	52	49	47	45	46	46	45	48	44	45	45	45	48	1475	
8.50	52	49	47	45	46	46	45	48	45	45	45	45	48	1468	
8.75	53	50	48	46	46	46	45	48	45	45	45	45	49	1486	
9.00	54	50	48	46	46	46	46	49	45	45	45	45	49	1469	
9.25	54	51	49	46	46	46	46	49	45	45	46	45	49	1498	
9.50	55	52	50	46	46	46	46	49	45	45	46	45	50	1518	
9.75	56	53	50	46	46	47	46	50	45	45	46	45	50	1495	
10.00	57	53	51	46	46	47	46	50	45	46	46	46	51	1488	
10.25	58	54	51	46	47	47	46	51	45	46	47	46	51	1492	
10.50	59	55	52	47	47	47	47	51	46	46	47	46	52	1505	
10.75	60	56	53	47	47	47	47	52	46	46	47	46	53	1504	
11.00	61	57	54	47	47	47	47	52	46	47	48	46	53	1510	
11.25	62	57	54	47	47	48	47	53	46	47	48	47	54	1518	
11.50	63	58	55	47	47	48	47	53	46	47	48	47	54	1521	
11.75	64	59	56	48	48	48	48	54	46	47	48	47	55	1505	
12.00	65	60	57	48	48	48	48	54	47	48	49	47	55	1513	
12.25	66	61	57	48	48	48	48	55	47	48	49	48	56	1502	
12.50	68	62	58	48	48	48	48	56	47	48	50	48	57	1499	



## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick

Project No. G104002492SAT-003

November 12, 2019

Time (min)	TC #28 (°F)	TC #29 (°F)	TC #30 (°F)	TC #31 (°F)	TC #32 (°F)	TC #33 (°F)	TC #34 (°F)	TC #35 (°F)	TC #36 (°F)	TC #37 (°F)	TC #38 (°F)	TC #39 (°F)	TC #40 (°F)	TC #41 (°F)
12.75	69	63	59	48	48	48	48	56	48	48	50	48	58	1524
13.00	70	64	60	49	48	49	49	57	48	49	50	48	59	1515
13.25	71	65	61	49	48	49	49	58	48	49	51	48	59	1525
13.50	73	66	62	49	49	49	49	58	48	49	51	49	60	1521
13.75	74	67	63	49	49	49	49	59	49	50	52	49	61	1518
14.00	76	69	64	49	49	49	50	60	49	50	52	49	62	1523
14.25	77	70	65	50	49	50	50	60	49	51	53	50	63	1538
14.50	78	71	66	50	49	50	50	61	50	51	53	50	64	1516
14.75	80	72	67	50	50	50	50	62	50	51	53	50	65	1517
15.00	81	74	68	50	50	50	51	63	50	52	54	51	66	1578
15.25	83	75	69	51	50	50	51	64	51	52	54	51	66	1599
15.50	85	77	71	51	50	50	51	64	51	53	55	51	68	1588
15.75	86	78	72	51	50	51	51	65	51	53	55	51	69	1610
16.00	88	80	73	51	51	51	52	66	52	54	56	52	70	1611
16.25	89	81	74	52	51	51	52	67	52	54	56	52	71	1611
16.50	91	83	76	52	51	51	52	68	53	55	57	53	72	1627
16.75	93	84	77	52	51	52	53	68	53	55	57	53	73	1599
17.00	94	86	78	52	51	52	53	69	54	56	58	53	74	1620
17.25	96	87	79	53	52	52	53	70	54	56	58	54	75	1605
17.50	98	89	81	53	52	52	53	71	55	57	59	54	76	1612
17.75	99	90	82	53	52	53	54	72	55	57	60	55	78	1604
18.00	101	92	83	53	52	53	54	73	55	58	60	55	79	1647
18.25	102	93	85	54	53	53	54	74	56	58	60	55	80	1633
18.50	104	95	86	54	53	53	55	75	56	59	61	56	81	1639
18.75	106	96	87	54	53	54	55	76	57	60	62	56	82	1642
19.00	108	98	89	55	53	54	55	78	58	60	62	57	84	1630
19.25	109	100	90	55	54	54	56	79	58	61	63	57	85	1630
19.50	111	101	91	55	54	55	56	81	59	61	63	58	86	1663
19.75	113	103	93	55	54	55	56	83	59	62	64	58	87	1660
20.00	115	105	94	56	55	55	57	86	60	63	64	58	89	1612
20.25	116	106	95	56	55	55	57	88	60	63	65	59	90	1650
20.50	118	108	97	56	55	56	57	91	61	64	65	60	92	1634
20.75	120	109	98	57	55	56	58	94	61	64	66	60	93	1672
21.00	122	111	100	57	56	57	58	98	62	65	67	61	94	1631
21.25	124	112	102	57	56	57	59	101	63	66	67	61	95	1638
21.50	126	114	104	58	56	57	59	105	63	67	68	62	97	1646
21.75	129	115	107	58	56	57	59	108	64	67	68	62	98	1646
22.00	131	117	110	58	57	58	60	111	65	68	69	63	99	1645
22.25	134	118	112	59	57	58	60	114	65	68	69	63	101	1650
22.50	137	120	115	59	57	59	61	117	66	69	70	64	102	1661
22.75	140	122	118	60	57	59	61	120	66	70	70	64	103	1647
23.00	143	124	121	60	58	60	61	123	67	70	71	65	105	1668
23.25	147	125	124	60	58	60	62	125	68	71	72	65	106	1678
23.50	152	128	127	61	58	61	62	128	68	72	72	66	108	1646
23.75	157	130	130	61	59	61	63	130	69	73	73	67	109	1647
24.00	171	132	133	61	59	62	63	132	70	73	74	67	110	1671
24.25	186	135	135	62	60	62	64	134	71	74	74	68	112	1667
24.50	187	138	138	62	60	63	64	136	71	75	75	69	113	1661
24.75	191	141	140	63	60	63	65	138	72	76	76	69	115	1670
25.00	239	144	142	63	61	64	65	139	73	77	77	70	116	1703
25.25	266	147	144	64	61	65	66	140	73	77	77	71	117	1721



Total Quality. Assured.

16015 Shady Falls Road  
Elmendorf, Texas 78112

Telephone: 210-635-8100  
Facsimile: 210-635-8101  
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### TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick

Project No. G104002492SAT-003

November 12, 2019

Time (min)	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall	Pass/ Fall
	TC #28 (°F)	TC #29 (°F)	TC #30 (°F)	TC #31 (°F)	TC #32 (°F)	TC #33 (°F)	TC #34 (°F)	TC #35 (°F)	TC #36 (°F)	TC #37 (°F)	TC #38 (°F)	TC #39 (°F)	TC #40 (°F)	TC #41 (°F)
25.50	290	158	146	64	62	65	66	142	74	78	78	71	119	1706
25.75	305	177	148	65	62	66	67	143	75	79	79	72	120	1730
26.00	315	178	150	65	62	67	67	144	76	80	80	73	121	1734
26.25	323	182	153	65	63	68	68	145	77	81	80	73	123	1706
26.50	338	230	157	66	63	68	69	146	78	82	81	74	124	1736
26.75	360	256	162	66	64	69	69	147	78	83	82	75	126	1723
27.00	386	283	167	67	64	70	70	147	80	84	83	76	127	1735
27.25	399	310	169	67	65	70	70	148	81	86	84	77	129	1716
27.50	407	331	177	68	66	71	71	149	84	88	84	78	131	1719
27.75	413	349	209	68	66	71	71	149	86	90	85	78	132	1728
28.00	416	365	231	69	67	72	72	150	88	92	86	80	134	1728
28.25	415	376	251	70	68	73	73	151	89	94	87	80	135	1719
28.50	420	390	273	70	68	74	74	151	91	95	87	81	137	1740
28.75	413	390	290	71	69	75	74	152	93	97	88	82	138	1729
29.00	400	387	310	72	70	75	75	152	94	99	89	83	139	1710
29.25	401	387	328	72	71	76	76	153	95	100	90	84	140	1759
29.50	404	387	345	73	71	77	77	153	97	102	91	85	142	1762
29.75	407	389	356	73	72	78	78	154	98	103	92	86	143	1757
30.00	415	395	368	74	73	79	78	154	100	104	92	87	144	1738
Max Temp	420	395	368	74	73	79	78	154	100	104	92	87	144	1762
Max Allowed	1000			1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000



Total Quality. Assured.

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### TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick

Project No. G104002492SAT-003

November 12, 2019

Time (min)	TC #42 (°F)	TC #43 (°F)	TC #44 (°F)	TC #45 (°F)	TC #46 (°F)	TC #47 (°F)	TC #48 (°F)	TC #49 (°F)	TC #50 (°F)	TC #51 (°F)	TC #52 (°F)	TC #53 (°F)	TC #54 (°F)	Pass/Fail
0.00	281	208	151	135	150	168	149	45	46	44	45	45	44	
0.25	942	800	559	583	679	635	538	45	45	44	45	45	44	
0.50	1157	1071	850	901	963	927	802	45	46	44	45	45	44	
0.75	1164	1116	936	980	1008	983	863	45	45	44	45	45	44	
1.00	1209	1137	985	1019	1043	1020	910	45	45	43	44	44	44	
1.25	1227	1181	1032	1040	1096	1132	969	45	45	44	45	45	44	
1.50	1268	1215	1068	1072	1149	1203	1151	45	45	44	44	44	44	
1.75	1311	1239	1084	1092	1149	1163	1221	45	45	44	44	44	44	
2.00	1314	1253	1107	1105	1146	1151	1149	45	45	44	45	45	44	
2.25	1293	1255	1119	1115	1152	1157	1104	45	45	44	45	45	44	
2.50	1308	1274	1130	1131	1157	1161	1100	45	45	44	45	44	44	
2.75	1354	1293	1139	1148	1174	1183	1110	45	45	44	45	45	44	
3.00	1351	1297	1155	1161	1191	1196	1133	45	45	44	45	45	44	
3.25	1370	1342	1170	1180	1217	1211	1143	45	45	43	44	44	44	
3.50	1377	1369	1208	1211	1253	1242	1147	44	44	43	44	44	44	
3.75	1473	1424	1227	1243	1298	1283	1198	45	45	43	44	44	44	
4.00	1460	1400	1235	1234	1291	1287	1184	45	45	43	44	44	44	
4.25	1428	1382	1232	1224	1277	1277	1192	45	45	43	44	44	44	
4.50	1439	1377	1229	1229	1280	1267	1186	45	45	43	44	44	44	
4.75	1426	1387	1235	1231	1274	1263	1196	45	45	43	44	44	44	
5.00	1453	1386	1235	1239	1280	1265	1194	45	45	43	44	44	44	
5.25	1435	1396	1238	1244	1286	1267	1206	45	45	43	44	44	44	
5.50	1426	1394	1242	1248	1283	1270	1208	44	45	43	44	44	44	
5.75	1430	1396	1245	1249	1286	1271	1200	45	45	44	44	44	44	
6.00	1436	1389	1247	1249	1287	1276	1201	45	45	44	44	44	44	
6.25	1426	1402	1255	1254	1288	1273	1213	45	45	44	44	44	44	
6.50	1429	1415	1258	1261	1287	1275	1217	45	45	44	45	45	44	
6.75	1407	1418	1259	1268	1294	1280	1216	45	45	44	44	45	44	
7.00	1489	1424	1259	1275	1301	1289	1215	45	45	44	45	45	44	
7.25	1489	1402	1263	1273	1307	1294	1211	45	45	43	44	44	44	
7.50	1490	1432	1272	1277	1316	1295	1229	45	45	43	44	44	44	
7.75	1477	1442	1266	1290	1315	1310	1239	45	45	44	45	45	44	
8.00	1475	1428	1277	1288	1311	1307	1252	45	45	44	45	45	45	
8.25	1439	1423	1272	1295	1324	1311	1252	45	45	44	45	45	44	
8.50	1470	1442	1281	1296	1328	1307	1247	45	45	44	45	45	45	
8.75	1476	1444	1282	1300	1333	1318	1250	45	45	44	44	44	44	
9.00	1478	1449	1292	1299	1332	1322	1252	45	45	44	45	45	45	
9.25	1474	1455	1286	1304	1346	1335	1262	45	45	44	45	45	45	
9.50	1454	1464	1299	1313	1347	1339	1270	45	45	44	45	45	45	
9.75	1470	1449	1296	1317	1346	1327	1276	45	45	44	45	45	45	
10.00	1505	1451	1301	1315	1347	1328	1273	45	45	44	45	45	45	
10.25	1509	1457	1304	1323	1351	1335	1270	45	45	44	45	45	45	
10.50	1499	1470	1309	1328	1358	1340	1275	45	45	44	45	45	45	
10.75	1493	1465	1313	1330	1363	1342	1281	46	46	44	45	45	45	
11.00	1500	1469	1315	1332	1359	1341	1289	46	46	44	45	45	45	
11.25	1506	1472	1319	1331	1362	1351	1296	46	46	44	45	45	45	
11.50	1527	1467	1315	1333	1367	1352	1282	46	46	44	45	45	45	
11.75	1529	1487	1320	1335	1373	1358	1285	45	45	44	45	45	45	
12.00	1522	1470	1317	1344	1377	1362	1297	45	45	44	45	45	45	
12.25	1531	1480	1320	1347	1383	1354	1294	46	46	44	45	45	45	
12.50	1551	1495	1323	1350	1391	1368	1299	45	45	43	44	44	45	





Total Quality. Assured.

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### TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick

Project No. G104002492SAT-003

November 12, 2019

Time (min)	TC #42 (°F)	TC #43 (°F)	TC #44 (°F)	TC #45 (°F)	TC #46 (°F)	TC #47 (°F)	TC #48 (°F)	TC #49 (°F)	TC #50 (°F)	TC #51 (°F)	TC #52 (°F)	TC #53 (°F)	TC #54 (°F)
12.75	1554	1474	1339	1342	1383	1366	1297	45	45	44	45	45	45
13.00	1507	1474	1335	1346	1384	1364	1299	46	46	44	45	45	45
13.25	1545	1484	1335	1350	1388	1360	1298	46	46	44	45	45	45
13.50	1500	1491	1336	1354	1388	1367	1305	46	46	44	45	45	45
13.75	1510	1487	1331	1360	1394	1373	1316	46	46	45	45	45	45
14.00	1495	1487	1341	1355	1391	1369	1316	46	46	44	45	45	45
14.25	1536	1491	1341	1357	1394	1377	1324	46	46	44	45	45	45
14.50	1529	1499	1342	1365	1408	1382	1325	46	46	44	45	45	45
14.75	1562	1496	1341	1365	1405	1385	1328	45	46	44	45	45	45
15.00	1607	1539	1363	1387	1438	1410	1355	45	45	44	45	45	45
15.25	1599	1553	1377	1403	1445	1426	1373	46	46	44	45	44	45
15.50	1620	1557	1390	1407	1461	1442	1368	46	46	44	45	45	45
15.75	1629	1559	1395	1412	1463	1444	1380	46	46	45	45	45	46
16.00	1621	1566	1391	1419	1470	1450	1392	46	46	44	45	45	45
16.25	1634	1578	1395	1421	1475	1456	1401	46	46	44	45	45	45
16.50	1638	1565	1403	1421	1478	1461	1400	46	46	44	45	45	46
16.75	1616	1566	1398	1431	1488	1468	1407	46	46	45	45	45	45
17.00	1638	1580	1408	1430	1484	1460	1400	46	46	45	46	46	46
17.25	1638	1598	1412	1446	1495	1474	1418	46	46	44	45	45	45
17.50	1653	1585	1416	1442	1492	1474	1418	46	46	44	46	46	46
17.75	1632	1595	1416	1444	1503	1476	1432	47	47	45	46	46	46
18.00	1661	1582	1421	1447	1494	1482	1431	47	47	45	46	46	46
18.25	1668	1598	1426	1452	1504	1481	1436	46	46	45	46	46	46
18.50	1616	1588	1426	1444	1496	1483	1428	47	47	45	46	46	46
18.75	1686	1587	1431	1451	1510	1500	1429	46	46	45	46	46	46
19.00	1645	1577	1431	1449	1512	1489	1445	46	47	45	46	46	46
19.25	1602	1601	1434	1460	1517	1498	1444	46	46	45	46	46	46
19.50	1657	1613	1439	1464	1509	1496	1458	47	47	45	46	46	46
19.75	1649	1603	1435	1462	1510	1497	1448	47	47	45	46	46	46
20.00	1653	1608	1438	1478	1530	1503	1451	46	46	45	46	45	46
20.25	1661	1601	1444	1469	1518	1504	1449	47	47	45	46	45	46
20.50	1625	1606	1445	1474	1521	1502	1448	47	47	45	46	46	46
20.75	1697	1618	1445	1472	1526	1508	1450	47	47	45	46	45	46
21.00	1640	1610	1443	1473	1529	1509	1456	46	46	45	46	45	45
21.25	1650	1603	1450	1473	1531	1514	1453	46	47	45	46	45	46
21.50	1696	1639	1456	1479	1530	1521	1460	47	46	45	46	46	46
21.75	1654	1628	1454	1476	1539	1523	1470	47	47	45	46	46	46
22.00	1667	1613	1451	1475	1541	1519	1471	47	47	45	46	46	46
22.25	1665	1610	1455	1478	1538	1513	1468	47	47	45	46	46	46
22.50	1720	1618	1456	1478	1545	1526	1463	47	47	45	46	46	46
22.75	1708	1612	1460	1479	1539	1524	1459	46	46	45	46	46	46
23.00	1676	1612	1456	1490	1539	1520	1465	47	47	45	46	46	46
23.25	1684	1626	1461	1485	1541	1521	1465	47	47	45	46	46	46
23.50	1669	1628	1460	1487	1542	1523	1475	47	47	45	46	46	46
23.75	1664	1616	1459	1493	1556	1528	1476	47	47	45	46	46	46
24.00	1677	1619	1462	1491	1546	1534	1484	47	47	45	46	46	46
24.25	1675	1600	1464	1492	1551	1530	1482	47	47	45	46	46	46
24.50	1682	1608	1466	1495	1553	1536	1481	47	47	45	46	46	46
24.75	1661	1630	1464	1500	1558	1533	1485	47	47	45	46	46	46
25.00	1703	1643	1487	1516	1582	1561	1523	48	47	45	46	46	47
25.25	1754	1659	1502	1526	1603	1576	1534	47	47	45	46	46	46



Total Quality. Assured.

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**TEST REPORT FOR OLD MILL BRICK**

Report No.: G104002492SAT-003.R1

Date: 12/17/19

Old Mill Brick

Project No. G104002492SAT-003

November 12, 2019

Time (min)	TC #42 (°F)	TC #43 (°F)	TC #44 (°F)	TC #45 (°F)	TC #46 (°F)	TC #47 (°F)	TC #48 (°F)	Pass/ Fail	Pass/ Fail	Pass/ Fail	Pass/ Fail	Pass/ Fail	Pass/ Fail
								TC #49 (°F)	TC #50 (°F)	TC #51 (°F)	TC #52 (°F)	TC #53 (°F)	TC #54 (°F)
25.50	1762	1682	1501	1525	1616	1590	1541	47	47	45	46	46	47
25.75	1771	1683	1508	1530	1619	1598	1544	47	47	46	46	46	47
26.00	1778	1697	1512	1539	1631	1604	1540	47	47	45	46	46	47
26.25	1767	1672	1510	1532	1624	1607	1535	47	47	45	46	46	47
26.50	1761	1680	1513	1543	1632	1607	1556	47	47	46	46	46	46
26.75	1756	1678	1513	1541	1633	1609	1548	47	47	46	47	46	47
27.00	1766	1677	1516	1539	1629	1612	1558	48	48	46	46	46	47
27.25	1757	1693	1518	1546	1643	1632	1588	48	48	46	47	46	47
27.50	1780	1679	1516	1550	1632	1608	1558	48	48	46	47	47	48
27.75	1787	1688	1521	1545	1645	1620	1566	47	47	46	47	47	47
28.00	1805	1723	1529	1558	1655	1618	1571	48	48	46	47	47	47
28.25	1760	1706	1530	1561	1644	1616	1566	48	48	46	47	47	47
28.50	1798	1697	1526	1554	1638	1611	1568	48	48	46	47	46	47
28.75	1798	1693	1530	1553	1645	1622	1567	48	48	46	47	47	48
29.00	1793	1686	1529	1571	1655	1634	1608	48	48	46	47	47	48
29.25	1802	1682	1530	1560	1638	1619	1572	48	48	46	47	46	47
29.50	1835	1695	1539	1561	1654	1634	1563	49	49	46	47	47	48
29.75	1823	1689	1538	1557	1652	1646	1585	49	49	46	47	47	48
30.00	1794	1702	1537	1570	1649	1640	1587	49	48	45	47	46	48
<b>Max Temp</b>	1835	1723	1539	1571	1655	1646	1608	49	49	46	47	47	48
<b>Max Allowed</b>								545	546	544	545	545	544



Total Quality. Assured.

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## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

Date: 12/17/19

### SECTION 11 DRAWINGS

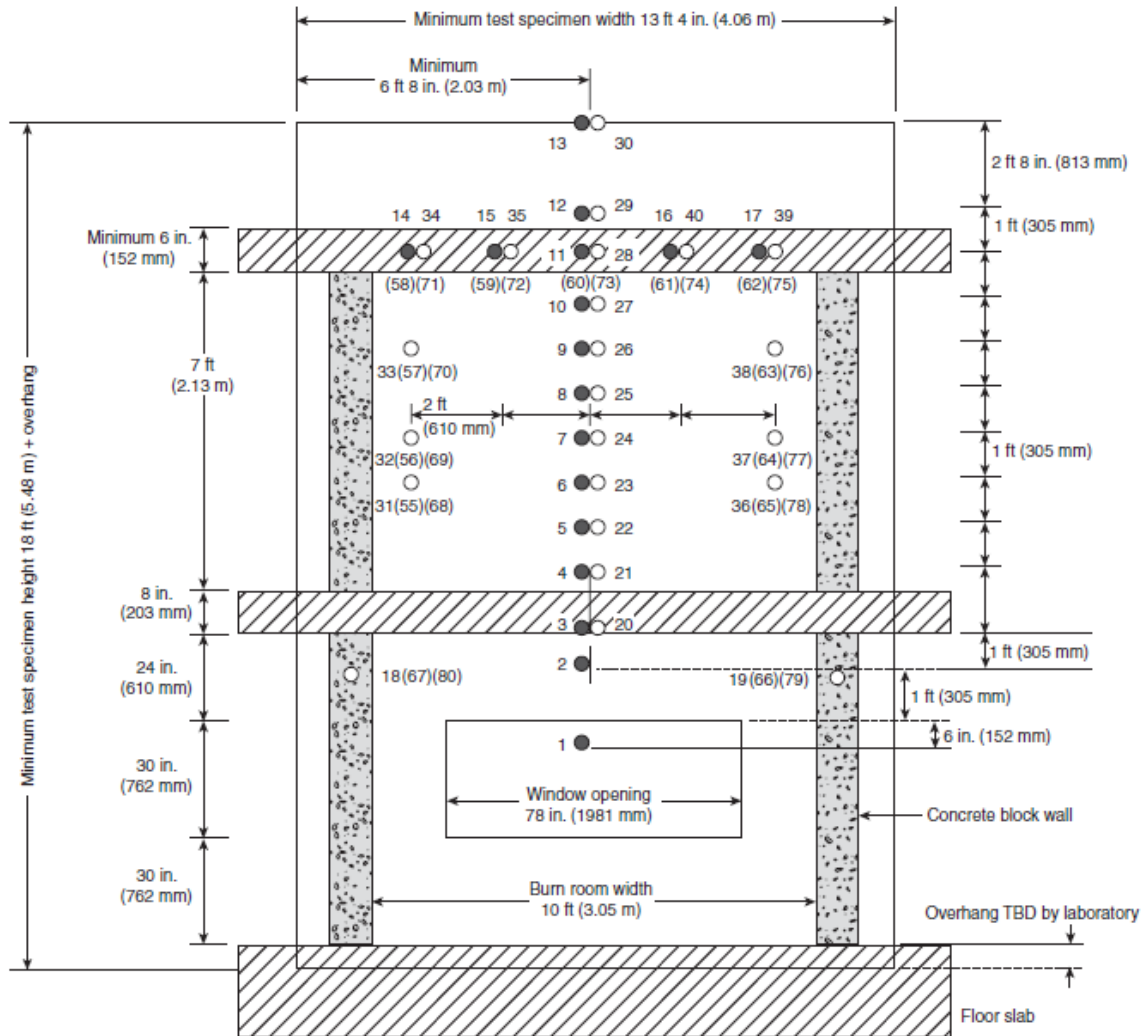
The test specimen drawings which follow have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

## TEST REPORT FOR OLD MILL BRICK

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### Standard TC Locations



- Thermocouples — 1 in. (25 mm) from exterior wall surface
- Thermocouples — In the wall cavity air space or the insulation, or both, as shown in Figure 6.1(b) Details A through I.
- ( ) Thermocouples — Additional thermocouples in the insulation or the stud cavity, or both, where required for the test specimen construction being tested, as shown in Figure 6.1(b) Details C through I.

## TEST REPORT FOR OLD MILL BRICK

Report No.: G104002492SAT-003.R1

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### Section 15

#### REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	12/17/19	43	Original Report Issue
1	2/20/2020	1, 2, 5, 6, 8	Corrected sample descriptions and client address. <i>PGC HWS</i>