ASTM E136-04
Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C

PlasterMax

Project No. 3116593SAT-004

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Prepared for:

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ABSTRACT

The specimens submitted by GigaCrete, Inc. and identified as "PlasterMax" were tested in accordance with ASTM E136-04 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C.

THE TEST SPECIMEN PASSED THIS TEST.

This report contains a total of nine pages.

Servando Romo
Project Manager

January 23, 2008

Reviewed and approved:

C. Anthony Peñaloza
Flammability Testing Team Leader

January 23, 2008

I. INTRODUCTION

This report describes the results of the ASTM E136-04 Standard Method of Test for Behavior of Materials in a Vertical Tube Furnace at 750° C.

This standard should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use.

II. PURPOSE

The results of the ASTM E136-04 test method may be used to characterize those materials which do not support combustion under the specified test conditions (750° C). The method is not intended to be used for laminated or coated materials. Materials passing the test are permitted limited flaming, glowing and mass loss.

III. DESCRIPTION OF TEST SPECIMENS

The client prepared the test specimens. The specimen consisted of a solid block of material with a stone look. The total dimensions of the specimen was 1.5” x 1.5” x 2” tall. A hole was made in the geometric center of each specimen in order to insert a thermocouple from the top. Another thermocouple was placed along one side face.

IV. TEST PROCEDURE

The specimens were conditioned at 60° ± 3°C for twenty-four hours, then stored in a desiccator for at least one hour. The specimens were placed on a 16 x 16 mesh nichrome wire cloth holder. The furnace temperature was stabilized at 750 ± 5.5°C (1382° ± 10°F). Each specimen was inserted into the furnace chamber and kept there until failure or until all temperature rise had ceased.

TEST CRITERIA

The specimen fails if the surface and interior temperatures rise more than 30°C above the furnace temperature or if the specimen flames after the first 30 seconds. If the specimen weight loss exceeds 50 %, the specimen can not have any flaming during the test and the surface and interior temperatures can not rise above the starting furnace temperature at any time during the test. Three samples must pass the test criteria.

V. RESULTS AND OBSERVATIONS

Specimens submitted by: GigaCrete, Inc.

Date received: December 14, 2007 (This specimen was received in good condition.)
Date tested: January 17, 2008
Specimen ID: PlasterMax

Description of specimen
One-coat abuse resistant decorative interior coating.

The PlasterMax cement-based interior veneer finish product was independently sampled from witnessed production by a representative from Intertek on August 23, 2007, as part of a Certification and Listing pre-test inspection and sampling program.

Environmental Conditions: 67°F and 55% r.h.

This Test Witnessed by: None

Test Notes: (Time in Min : Sec. Top View Only)

Observation	1	2	3	4
Ignition	none	none	none	none
Flame-out	N/A	N/A	N/A	N/A

The results of these tests are presented in the following table:

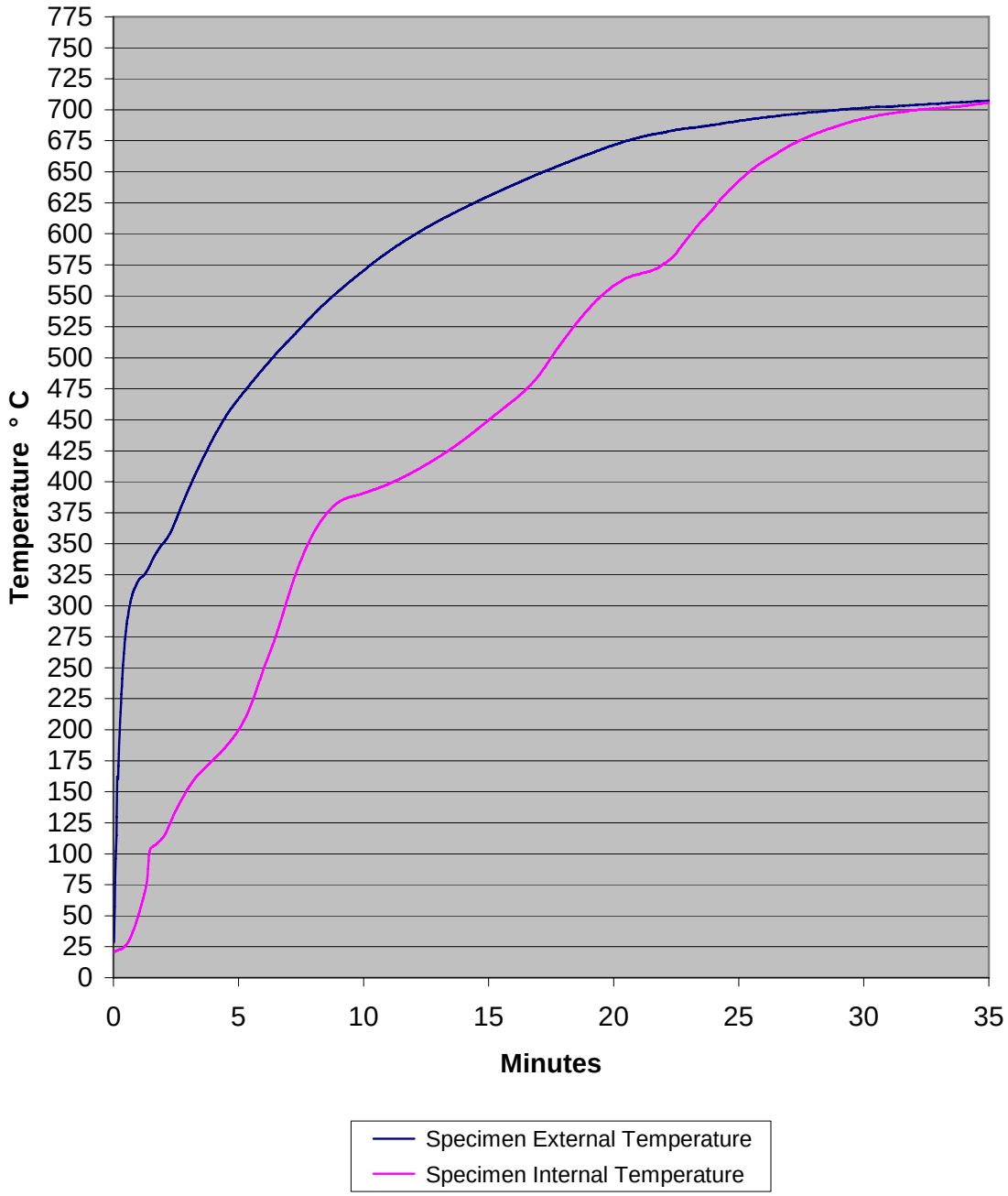
Specimen Number	Initial Wt. (g)	Final Wt. (g)	Wt. Loss (%)	Furnace Temp. (°C)	Max. Surface Temp. (°C)	Max. Interior Temp. (°C)
1	142.18	123.16	13.38%	753	717	720
2	147.67	122.22	17.23%	754	731	729
3	147.11	124.99	15.04%	751	738	733
4	148.20	125.50	15.32%	754	736	736

VI. CONCLUSIONS
The test specimens described in this report, and tested as described herein, passed the requirements of the ASTM E 136-04.

APPENDIX

GRAPHS

Specimen 1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Temperature ° C
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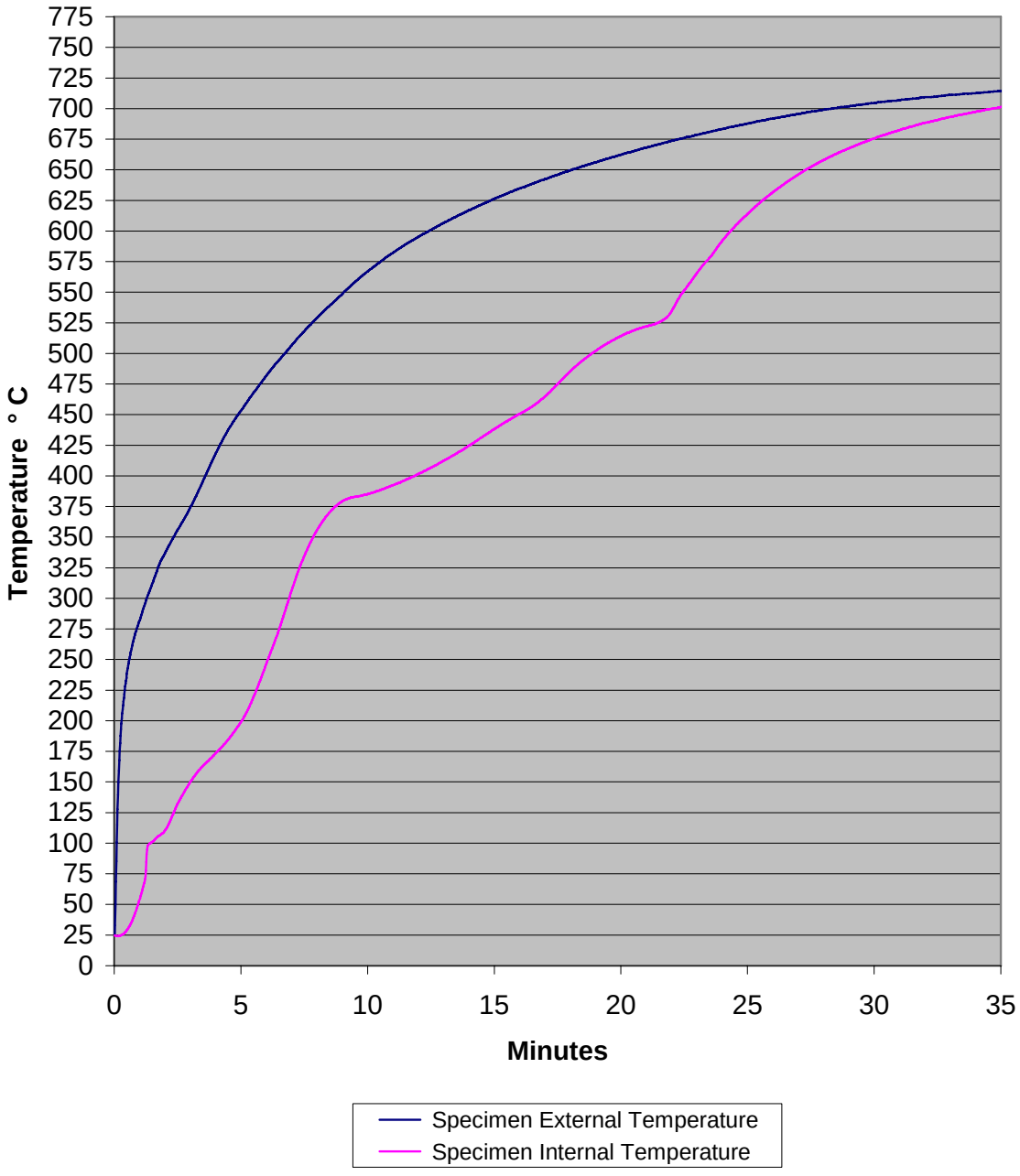
35
Minutes
Specimen External Temperature
Specimen Internal Temperature

Specimen 2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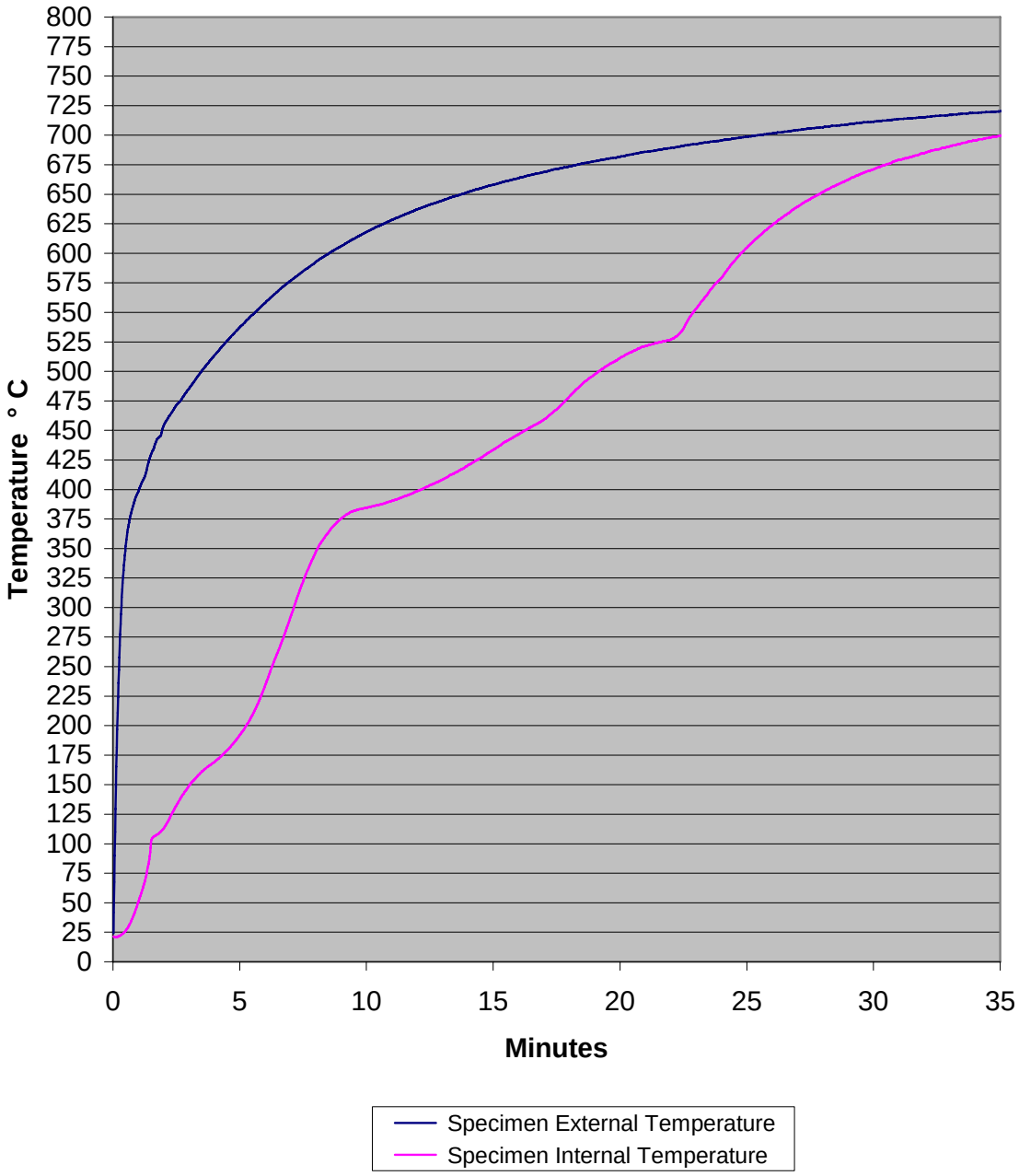
Specimen External Temperature
Specimen Internal Temperature

Specimen 3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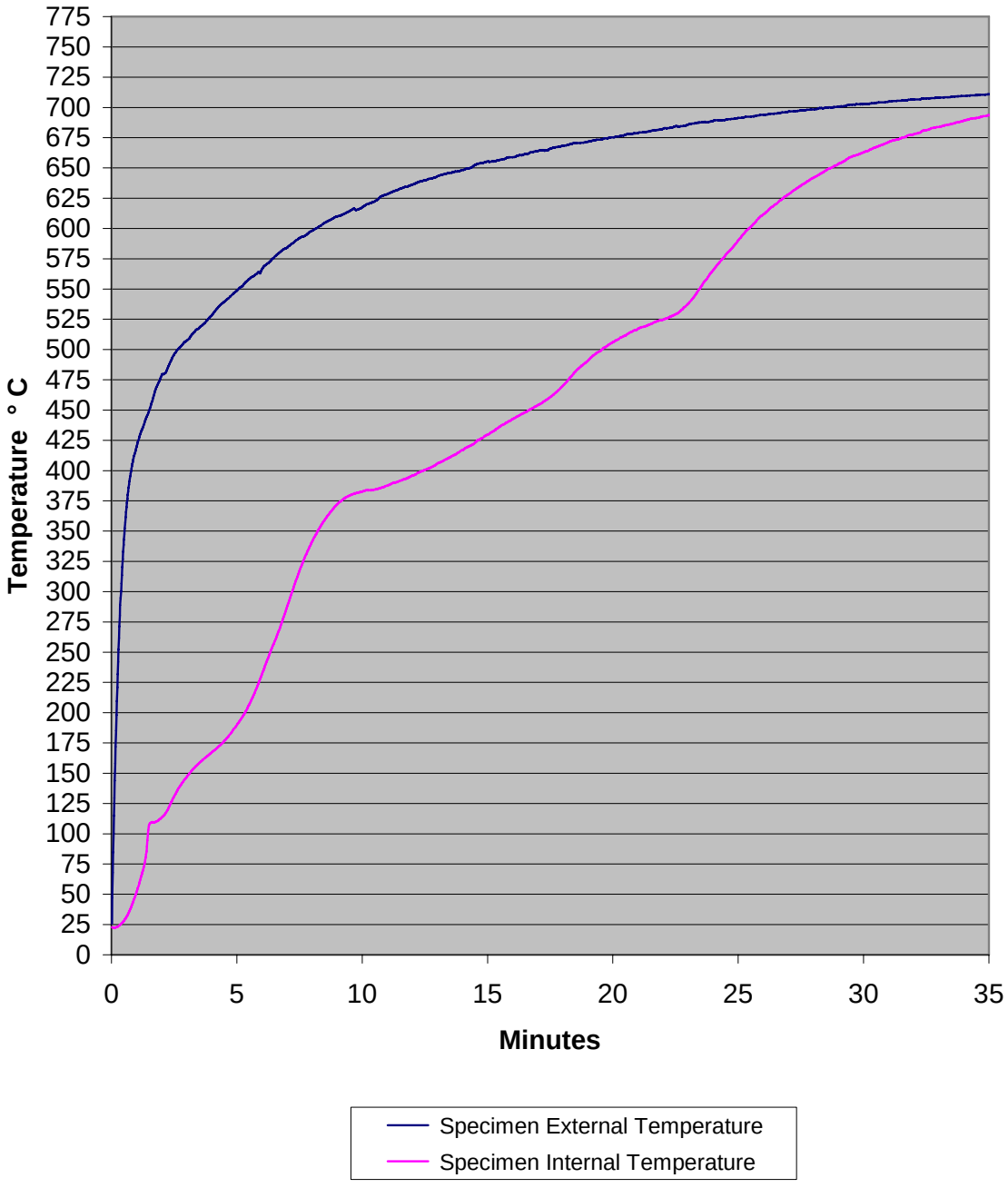
Specimen External Temperature
Specimen Internal Temperature

Specimen 4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Minutes
Specimen External Temperature
Specimen Internal Temperature