

CLIENT: **SUNGHYUN CHEMICALS CO., LTD**
465 Chogeum-ro Geumwang-eup Eumseong-gun
Chungbuk, Korea

Test Report No: RJ3838P-14

Date: June 10, 2015

SAMPLE ID: Hicote ET Vermiculite SFRM SGS Korea File No; AYAA15-07869.

SAMPLING DETAIL: Test samples were submitted to the laboratory directly by the client. No special sampling conditions or sample preparation were observed by QAI.

DATE OF RECEIPT: Samples were received at QAI on March 26, 2015.

TESTING PERIOD: April 27 thru May 8, 2015.

AUTHORIZATION: QAI Test Proposal SP-2014-081803 Rev.2 dated February 19, 2015 signed by June Lee of SGS Korea Co., Ltd on February 23, 2015.

TEST REQUESTED: Air Erosion Test per ASTM E 859-93 (Reapproved 2006), *Standard Test Method for Air Erosion of Sprayed Fire-Resistive Materials (SFRM's) Applied to Structural Members*.

TEST PROCEDURE: The SFRM was applied to a 0.37 m² (4 ft²) rigid substrate at a uniform thickness of 22 mm following the manufactures specification. The test specimens were conditioned to constant weight for a minimum of 8 days at a temperature of 20° ± 5°C and a relative humidity of 50 ± 5% prior to testing.

The test specimen was then subjected to an air velocity of 6 m/s (20 ft/s) for a period of 24 hours and the amount of SFRM material collected on the filter, in grams, recorded after 1, 6 and 24 hour test intervals. The test was then repeated at an air velocity of 12.7 m/s (41.7 ft/s) for 4 hours.

TEST RESULTS: Test results are provided on Page 2 of this report.

Tested By



David Royer
Laboratory Technician

**Signed for and on behalf of
QAI Laboratories, Inc.**



Larry Burmer
Project Leader-Physical Testing

AIR EROSION TEST PER ASTM E 859-93

Test Results

Air Velocity 6 m/s (20 ft/s)	
Elapsed Time (Hours)	SFRM Material Collected (grams)
1	0.004
6	0.001
24	0.001

Air Velocity 12.7 m/s (41.7 ft/s)	
Elapsed Time (Hours)	SFRM Material Collected (grams)
4	0.003

******End of Report******