



EMSL Analytical, Inc.

107 Haddon Avenue, Westmont, NJ 08108
Phone: (856) 858-4800

Materials Science Division

Attn.: *Bart Adams*

Flexi-Brick LLC
500 Elk Street
Buffalo, NY. 14210

Phone: 716-826-0078 Fax: 716-856-6023

EMSL Case No.: 360902003
Sample(s) Received: 9/30/09
Date of Analysis: 10/2/09
Date Printed: 10/2/09
Reported By: J.Newton

- Laboratory Report -

Smoke Density

Project: Flexible Brick Veneer NMFC

Analyzed by:

John Newton
Laboratory Manager

2 October 2009

Date

QA/QC:

Eugenia Mirica Ph.D.
Senior Materials Scientist

2 October 2009

Date



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Procurement of Samples and Analytical Overview:

The material for analysis arrived at EMSL Analytical's corporate laboratory in Westmont, NJ on ----. The package arrived in satisfactory condition with no evidence of damage to the contents. The data reported herein has been obtained using the following equipment and methodologies.

Methods & Equipment: ASTM E662 - 09 Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials

Descriptions & Definitions:

None Detected (ND) denotes the absence of an analyte in the sub-sample analyzed. Trace levels of the analyte may be present in the sample below the limit of detection (LOD).

Trace (TR) denotes the presence of a material in a concentration significantly below the limit of detection (LOD) for the method.

Analytical Sensitivity (AS): The minimum concentration that can be theoretically achieved for a given analytical procedure in the absence of matrix or sample processing effects. Particle analysis is limited to a single occurrence of an analyte particle in the sub-sample analyzed.

Limit of Quantitation (LOQ): The minimum concentration of an analyte that can be measured within specified limits of precision and accuracy during routine laboratory operating conditions

The results are obtained using the methods and sampling procedures as described in the report or as stated in the published standard methods, and are only guaranteed to the accuracy and precision consistent with the used methods and sampling procedures. Any change in methods and sampling procedure may generate substantially different results. EMSL Analytical, Inc. assumes no responsibility or liability for the manner in which the results are used or interpreted. Official, legally defensible reports require hand signatures. Reports with digital signatures are for email and other digital distribution only.



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Results and Discussion:

Sample ID	Description		Smoke Density (D_m)	Units
1	Flexible Brick Veneer NMFC 32330	Flaming	210 (± 10)	D_m
		Non-Flaming	110 (± 10)	D_m
2	Flexible Brick Veneer NMFC 32330	Flaming	210 (± 10)	D_m
		Non-Flaming	110 (± 10)	D_m
3	Flexible Brick Veneer NMFC 32330	Flaming	210 (± 10)	D_m
		Non-Flaming	110 (± 10)	D_m
4	Flexible Brick Veneer NMFC 32330	Flaming	210 (± 10)	D_m
		Non-Flaming	110 (± 10)	D_m
5	Flexible Brick Veneer NMFC 32330	Flaming	210 (± 10)	D_m
		Non-Flaming	110 (± 10)	D_m
6	Flexible Brick Veneer NMFC 32330	Flaming	210 (± 10)	D_m
		Non-Flaming	110 (± 10)	D_m
Reference 1	NBS Standard Reference Material 1007	Flaming	430	D_m
		Non-Flaming	160	D_m

NBS Standard Reference Material 1007 has an expected value of 433 Flaming and 168 non-Flaming.



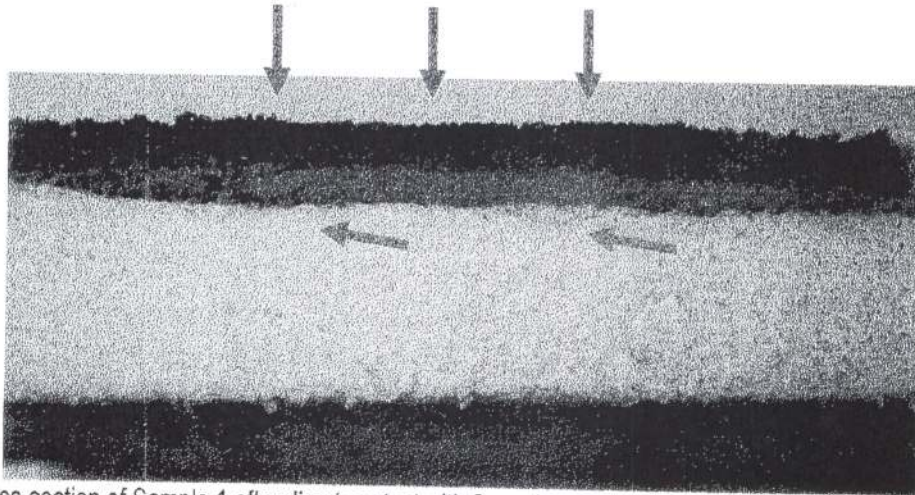
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Cross-section of Sample 1 after direct contact with flame (contact surface noted by red arrows). The surface is unaffected and the polystyrene substrate displays shrinkage (noted by green arrow) but no discoloration or charring after 1 minute of exposure.