



DIVERSIFIED
TESTING LABORATORIES, INC.
WORLDWIDE SERVICE

“We Test Per Your Request”

336 WEST FRONT STREET
P.O. BOX 4004
BURLINGTON, NORTH CAROLINA 27215
PHONE (336) 227-7710 • FAX (336) 227-1175
www.diversifiedtestinglabs.com

January 27, 2023

Mr. Nathan Wintermute
MERMET
5970 N. Main Street
Cowpens, SC 29330

Reference: Laboratory Test Report
Lab Identification No. 53565
Invoice No. 84866

Dear Mr. Wintermute:

One (1) sample, identified as **E Screen 0.5%**, was received and tested in accordance with the National Fire Protection Association No. 701, "Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2019 Edition, (Test 1)". The results are as follows:

<u>Test Results</u>		
<u>Specimen Number</u>	<u>Residual Flame</u> (seconds)	<u>Weight Loss</u> (percent)
1	0.0	5.82
2	0.0	7.57
3	0.0	5.89
4	0.0	5.47
5	0.0	4.49
6	0.0	6.70
7	0.0	4.69
8	0.0	5.98
9	0.0	5.03
<u>10</u>	<u>0.0</u>	<u>7.23</u>
AVG	0.0	5.89

The sample submitted **meets** the minimum requirements of the above standard. The average percent weight loss cannot exceed 40% and the weight loss of individual specimens cannot exceed mean value plus three standard deviations. The average residual flame cannot exceed 2.0 seconds.

Sincerely,

Brian S. Dement

BSD/mr





For the Account of: Mermet
 5970 N Main St Cowpens SC 29330

Client's Identification: E SCREEN 1%

CERTIFICATE OF TESTING

TEST PERFORMED: NFPA 701 Standard Methods of Fire Test for Flame Propagation of Textiles and Films 2019 – Test #1

TEST RESULTS

Specimen	Mass Initial (g)	Mass Final (g)	Mass Loss (%)	Drip Burn (s)	Afterflame (s)
1	27.9	27.3	2	0.0	0.0
2	28.1	25.4	10	0.0	0.0
3	28.2	25.7	9	0.0	0.0
4	27.7	25.4	8	0.0	0.0
5	28.4	27.6	3	0.0	0.0
6	28.6	27.9	2	0.0	0.0
7	27.6	26.9	3	0.0	0.0
8	29.6	28.7	3	0.0	0.0
9	28.0	27.2	3	0.0	0.0
10	27.9	26.7	4	0.0	0.0
Average	28.2	26.9	5	0.0	0.0

Approximate weight (oz./sq. yd): 13.9

Standard Deviation: 3.1

Average + 3 SD: 14.3

Product Configuration: Single Layer Multi Layer

Conditioning: Oven at 220°F for minimum 30 minutes

70 ±2°F & 65 ±2%RH for minimum 24 hours

Intended End-use (if known & other than drapery): Other and / or Unknown

ACCEPTANCE CRITERIA

Afterflame is required to be recorded; however, it is not factored into the Acceptance Criteria

- Where fragments or residues of specimens that fall to the floor of the test chamber continue to burn for more than an average of 2 seconds per specimen for the sample of 10 specimens, the material shall be recorded as failing. (Flaming Drip)
- Where the average weight loss of the 10 specimens in a sample is greater than 40 percent, the material shall be recorded as failing.
- Individual specimens will be listed as a failure if it exceeds mean + 3 SD
- Where the specimens do not demonstrate performance in accordance with either of the conditions indicated above, the material shall be recorded as passing this test and shall be designated as flame resistant.

CONCLUSION Based on the above Results and Acceptance Criteria, the item tested:

- Complies
 Does Not Comply

CERTIFICATION I certify that the above results were obtained after testing specimen in accordance with the procedures and equipment specified by the standard stated above.

Berta Stiver

Authorized Signature

Date Order Completed: 08/21/2024



For the Account of: Mermet
5970 N Main St Cowpens SC 29330

Client's Identification: E SCREEN 3%

CERTIFICATE OF TESTING

TEST PERFORMED: NFPA 701 Standard Methods of Fire Test for Flame Propagation of Textiles and Films 2019 – Test #1

TEST RESULTS

Specimen	Mass Initial (g)	Mass Final (g)	Mass Loss (%)	Drip Burn (s)	Afterflame (s)
1	25.6	24.6	4	0.0	0.0
2	25.4	23.1	9	0.0	0.0
3	25.5	23.9	6	0.0	0.0
4	25.6	24.7	4	0.0	0.0
5	25.9	23.9	8	0.0	0.0
6	25.8	23.0	11	0.0	0.0
7	26.2	24.6	6	0.0	0.0
8	26.3	24.0	9	0.0	0.0
9	26.0	23.1	11	0.0	0.0
10	26.0	24.9	4	0.0	0.0
Average	25.8	24.0	7	0.0	0.0

Approximate weight (oz./sq. yd): 12.7

Standard Deviation: 2.8

Average + 3 SD: 15.4

Product Configuration: Single Layer Multi Layer

Conditioning: Oven at 220°F for minimum 30 minutes

70 ±2°F & 65 ±2%RH for minimum 24 hours

Intended End-use (if known & other than drapery): Other and / or Unknown

ACCEPTANCE CRITERIA

Afterflame is required to be recorded; however, it is not factored into the Acceptance Criteria

- Where fragments or residues of specimens that fall to the floor of the test chamber continue to burn for more than an average of 2 seconds per specimen for the sample of 10 specimens, the material shall be recorded as failing. (Flaming Drip)
- Where the average weight loss of the 10 specimens in a sample is greater than 40 percent, the material shall be recorded as failing.
- Individual specimens will be listed as a failure if it exceeds mean + 3 SD
- Where the specimens do not demonstrate performance in accordance with either of the conditions indicated above, the material shall be recorded as passing this test and shall be designated as flame resistant.

CONCLUSION Based on the above Results and Acceptance Criteria, the item tested:

Complies

Does Not Comply

CERTIFICATION I certify that the above results were obtained after testing specimen in accordance with the procedures and equipment specified by the standard stated above.

Berta Stiver

Authorized Signature

Date Order Completed: 08/20/2024



For the Account of: Mermet
5970 N Main St Cowpens SC 29330

Client's Identification: E SCREEN 5%

CERTIFICATE OF TESTING

TEST PERFORMED: NFPA 701 Standard Methods of Fire Test for Flame Propagation of Textiles and Films 2019 – Test #1

TEST RESULTS

Specimen	Mass Initial (g)	Mass Final (g)	Mass Loss (%)	Drip Burn (s)	Afterflame (s)
1	23.9	22.2	7	0.0	0.0
2	24.2	22.3	8	0.0	0.0
3	24.2	21.8	10	0.0	0.0
4	24.1	23.5	2	0.0	0.0
5	23.9	22.1	8	0.0	0.0
6	23.7	22.0	7	0.0	0.0
7	24.0	20.9	13	0.0	0.0
8	24.0	21.1	12	0.0	0.0
9	23.5	21.2	10	0.0	0.0
10	23.4	23.0	2	0.0	0.0
Average	23.9	22.0	8	0.0	0.0

Approximate weight (oz./sq. yd): 11.8

Standard Deviation: 3.7

Average + 3 SD: 19.1

Product Configuration: Single Layer Multi Layer

Conditioning: Oven at 220°F for minimum 30 minutes

70 ±2°F & 65 ±2%RH for minimum 24 hours

Intended End-use (if known & other than drapery): Other and / or Unknown

ACCEPTANCE CRITERIA

Afterflame is required to be recorded; however, it is not factored into the Acceptance Criteria

- Where fragments or residues of specimens that fall to the floor of the test chamber continue to burn for more than an average of 2 seconds per specimen for the sample of 10 specimens, the material shall be recorded as failing. (Flaming Drip)
- Where the average weight loss of the 10 specimens in a sample is greater than 40 percent, the material shall be recorded as failing.
- Individual specimens will be listed as a failure if it exceeds mean + 3 SD
- Where the specimens do not demonstrate performance in accordance with either of the conditions indicated above, the material shall be recorded as passing this test and shall be designated as flame resistant.

CONCLUSION Based on the above Results and Acceptance Criteria, the item tested:

Complies

Does Not Comply

CERTIFICATION I certify that the above results were obtained after testing specimen in accordance with the procedures and equipment specified by the standard stated above.

Berta Stiver

Authorized Signature

Date Order Completed: 08/20/2024



For the Account of: Mermet
5970 N Main St Cowpens SC 29330

Client's Identification: E SCREEN 10%

CERTIFICATE OF TESTING

TEST PERFORMED: NFPA 701 Standard Methods of Fire Test for Flame Propagation of Textiles and Films 2019 – Test #1

TEST RESULTS

Specimen	Mass Initial (g)	Mass Final (g)	Mass Loss (%)	Drip Burn (s)	Afterflame (s)
1	22.9	19.8	14	0.0	0.0
2	22.9	18.8	18	0.0	0.0
3	23.1	22.1	4	0.0	0.0
4	23.1	21.0	9	0.0	0.0
5	23.1	21.1	9	0.0	0.0
6	23.1	21.5	7	0.0	0.0
7	22.9	21.0	8	0.0	0.0
8	22.9	20.9	9	0.0	0.0
9	23.0	21.0	9	0.0	0.0
10	23.0	20.9	9	0.0	0.0
Average	23.0	20.8	10	0.0	0.0

Approximate weight (oz./sq. yd): 11.3

Standard Deviation: 3.8

Average + 3 SD: 21.4

Product Configuration: Single Layer Multi Layer

Conditioning: Oven at 220°F for minimum 30 minutes

70 ±2°F & 65 ±2%RH for minimum 24 hours

Intended End-use (if known & other than drapery): Drapery

ACCEPTANCE CRITERIA

Afterflame is required to be recorded; however, it is not factored into the Acceptance Criteria

- Where fragments or residues of specimens that fall to the floor of the test chamber continue to burn for more than an average of 2 seconds per specimen for the sample of 10 specimens, the material shall be recorded as failing. (Flaming Drip)
- Where the average weight loss of the 10 specimens in a sample is greater than 40 percent, the material shall be recorded as failing.
- Individual specimens will be listed as a failure if it exceeds mean + 3 SD
- Where the specimens do not demonstrate performance in accordance with either of the conditions indicated above, the material shall be recorded as passing this test and shall be designated as flame resistant.

CONCLUSION Based on the above Results and Acceptance Criteria, the item tested:

- Complies
 Does Not Comply

CERTIFICATION I certify that the above results were obtained after testing specimen in accordance with the procedures and equipment specified by the standard stated above.

Berta Stiver

Authorized Signature

Date Order Completed: 08/21/2024



For the Account of: Mermet
5970 N Main St Cowpens SC 29330

Client's Identification: E Screen KOOLBLACK 0.5%

CERTIFICATE OF TESTING

TEST PERFORMED: NFPA 701 Standard Methods of Fire Test for Flame Propagation of Textiles and Films 2019 – Test #1

TEST RESULTS

Specimen	Mass Initial (g)	Mass Final (g)	Mass Loss (%)	Drip Burn (s)	Afterflame (s)
1	31.6	30.2	4	0.0	0.0
2	30.6	29.0	5	0.0	0.0
3	30.9	29.1	6	0.0	0.0
4	31.0	29.3	5	0.0	0.0
5	30.5	28.8	6	0.0	0.0
6	31.0	29.4	5	0.0	0.0
7	30.6	28.8	6	0.0	0.0
8	30.7	29.2	5	0.0	0.0
9	30.7	29.3	5	0.0	0.0
10	30.8	29.1	6	0.0	0.0
Average	30.8	29.2	5	0.0	0.0

Approximate weight (oz./sq. yd): 15.2

Standard Deviation: 0.7

Average + 3 SD: 7.1

Product Configuration: Single Layer Multi Layer

Conditioning: Oven at 220°F for minimum 30 minutes

70 ±2°F & 65 ±2%RH for minimum 24 hours

Intended End-use (if known & other than drapery): Drapery

ACCEPTANCE CRITERIA

Afterflame is required to be recorded; however, it is not factored into the Acceptance Criteria

- Where fragments or residues of specimens that fall to the floor of the test chamber continue to burn for more than an average of 2 seconds per specimen for the sample of 10 specimens, the material shall be recorded as failing. (Flaming Drip)
- Where the average weight loss of the 10 specimens in a sample is greater than 40 percent, the material shall be recorded as failing.
- Individual specimens will be listed as a failure if it exceeds mean + 3 SD
- Where the specimens do not demonstrate performance in accordance with either of the conditions indicated above, the material shall be recorded as passing this test and shall be designated as flame resistant.

CONCLUSION Based on the above Results and Acceptance Criteria, the item tested:

Complies

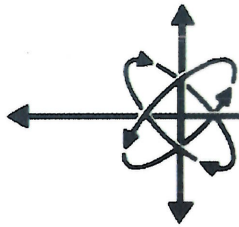
Does Not Comply

CERTIFICATION I certify that the above results were obtained after testing specimen in accordance with the procedures and equipment specified by the standard stated above.

Berta Stiver

Authorized Signature

Date Order Completed: 04/03/2023



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April 25, 2017

Ms. Ali Fisher
 MERMET
 5970 N. Main Street
 Cowpens, SC 29330

Reference: Laboratory Test Report
 Lab Identification No. 24869
 Invoice No. 56012

Dear Ms. Fisher:

One (1) fabric sample, identified as **E SCREEN KOOLBLACK 1%**, was received and tested in accordance with the National Fire Protection Association No. 701, "Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2015 Edition, (Test 1, Small Scale)". The results are as follows:

<u>Specimen Number</u>	<u>Test Results</u> <u>Residual Flame</u> (seconds)	<u>Weight Loss</u> (percent)
1	0.0	7.06
2	0.0	7.33
3	0.0	11.36
4	0.0	10.54
5	0.0	11.41
6	0.0	10.20
7	0.0	8.31
8	0.0	8.44
9	0.0	7.22
<u>10</u>	<u>0.0</u>	<u>9.77</u>
AVG	0.0	9.16

The fabric sample submitted **meets** the minimum requirements of the above standard. The average percent weight loss cannot exceed 40% and the weight loss of individual specimens cannot exceed mean value plus three standard deviations. The average residual flame cannot exceed 2.0 seconds.

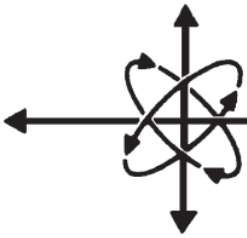
If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Brian S. Dement

BSD/mr





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March 29, 2019

Mr. Nathan Wintermute
MERMET
5970 N. Main Street
Cowpens, SC 29330

Reference: Laboratory Test Report
Lab Identification No. 35163
Invoice No. 66375

Dear Mr. Wintermute:

One (1) sample, identified as **E SCREEN™ 3% WITH KOOLBLACK® TECHNOLOGY**, was received and tested in accordance with the National Fire Protection Association No. 701, "Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2019 Edition, (Test 1)". The results are as follows:

<u>Specimen Number</u>	<u>Test Results</u> <u>Residual Flame</u> (seconds)	<u>Weight Loss</u> (percent)
1	0.0	1.49
2	0.0	0.73
3	0.0	1.30
4	0.0	0.21
5	0.0	3.21
6	0.0	0.68
7	0.0	2.34
8	0.0	0.24
9	0.0	3.05
<u>10</u>	<u>0.0</u>	<u>0.32</u>
AVG	0.0	1.36

The fabric sample submitted **meets** the minimum requirements of the above standard. The average percent weight loss cannot exceed 40% and the weight loss of individual specimens cannot exceed mean value plus three standard deviations. The average residual flame cannot exceed 2.0 seconds.

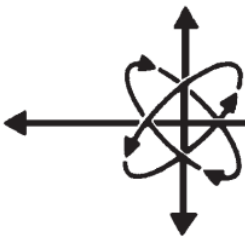
If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Brian S. Dement

BSD/mr





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March 29, 2019

Mr. Nathan Wintermute
MERMET
5970 N. Main Street
Cowpens, SC 29330

Reference: Laboratory Test Report
Lab Identification No. 35163
Invoice No. 66375

Dear Mr. Wintermute:

One (1) sample, identified as **E SCREEN™ 5% WITH KOOLBLACK® TECHNOLOGY**, was received and tested in accordance with the National Fire Protection Association No. 701, "Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2019 Edition, (Test 1)". The results are as follows:

<u>Specimen Number</u>	<u>Test Results</u> <u>Residual Flame</u> (seconds)	<u>Weight Loss</u> (percent)
1	0.0	0.67
2	0.0	1.04
3	0.0	1.63
4	0.0	0.47
5	0.0	1.79
6	0.0	1.05
7	0.0	1.93
8	0.0	1.06
9	0.0	0.99
<u>10</u>	<u>0.0</u>	<u>0.51</u>
AVG	0.0	1.11

The fabric sample submitted **meets** the minimum requirements of the above standard. The average percent weight loss cannot exceed 40% and the weight loss of individual specimens cannot exceed mean value plus three standard deviations. The average residual flame cannot exceed 2.0 seconds.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Brian S. Dement

BSD/mr





For the Account of: Mermet
5970 N Main St Cowpens SC 29330

Client's Identification: E Screen KOOLBLACK 10%

CERTIFICATE OF TESTING

TEST PERFORMED: NFPA 701 Standard Methods of Fire Test for Flame Propagation of Textiles and Films 2019 – Test #1

TEST RESULTS

Specimen	Mass Initial (g)	Mass Final (g)	Mass Loss (%)	Drip Burn (s)	Afterflame (s)
1	22.4	21.4	4	0.0	0.0
2	22.3	21.5	4	0.0	0.0
3	22.2	21.6	3	0.0	0.0
4	22.4	22.1	1	0.0	0.0
5	22.2	21.4	4	0.0	0.0
6	22.3	21.6	3	0.0	0.0
7	22.3	21.8	2	0.0	0.0
8	22.5	21.5	4	0.0	0.0
9	22.4	21.6	4	0.0	0.0
10	22.5	21.3	5	0.0	0.0
Average	22.4	21.6	3	0.0	0.0

Approximate weight (oz./sq. yd): 11.0

Standard Deviation: 1.2

Average + 3 SD: 6.6

Product Configuration: Single Layer Multi Layer

Conditioning: Oven at 220°F for minimum 30 minutes 70 ±2°F & 65 ±2%RH for minimum 24 hours

Intended End-use (if known & other than drapery): Drapery

ACCEPTANCE CRITERIA

Afterflame is required to be recorded; however, it is not factored into the Acceptance Criteria

- Where fragments or residues of specimens that fall to the floor of the test chamber continue to burn for more than an average of 2 seconds per specimen for the sample of 10 specimens, the material shall be recorded as failing. (Flaming Drip)
- Where the average weight loss of the 10 specimens in a sample is greater than 40 percent, the material shall be recorded as failing.
- Individual specimens will be listed as a failure if it exceeds mean + 3 SD
- Where the specimens do not demonstrate performance in accordance with either of the conditions indicated above, the material shall be recorded as passing this test and shall be designated as flame resistant.

CONCLUSION Based on the above Results and Acceptance Criteria, the item tested:

- Complies
 Does Not Comply

CERTIFICATION I certify that the above results were obtained after testing specimen in accordance with the procedures and equipment specified by the standard stated above.

Berta Stiver

Authorized Signature

Date Order Completed: 04/03/2023