

Number of pages in this package 10

TEST LOCATION:			
<input checked="" type="checkbox"/> UL or Affiliate	<input type="checkbox"/> WTDP	<input type="checkbox"/> CTDP	<input type="checkbox"/> OTHER
Company Name Underwriters Laboratories Inc			
Address 333 Pfingsten Rd Northbrook, IL			

CLIENT INFORMATION	
Company Name	Baums Castorine, Inc.
Address	200 Matthew Street Rome, NY 13440 USA

AUDIT INFORMATION:			
Description of Tests		Per Standard No.	
<input checked="" type="checkbox"/>	NFPA Standard on Wetting Agents, NFPA 18, 2006 Edition, Issued 2005-07-29		
<input type="checkbox"/>	UL Standard for Rating and Testing of Fire Extinguishers, UL 711, Edition 6, Dated 2002-08-14		
<input type="checkbox"/>	Tests Conducted by +	Frank Husak	Frank Husak
		Printed name	Signature
Reviewed and accepted by qualified Project Handler	Craig S. Thames	Craig S. Thames	
		Printed Name	Signature

TESTS TO BE CONDUCTED:			
Test No.	Done	Test Name	<input type="checkbox"/> Comments/Parameters <input type="checkbox"/> Tests Conducted by ++
1	2008-10-24	CLASS A FIRE EXTINGUISHMENT TESTS - DEEP SEATED FIRE TEST	
2	N/A	CLASS A FIRE EXTINGUISHMENT TESTS - WOOD FIBER BOARD PENETRATION	Test Not performed based on performance under data sheet package dated 2007-03-17

Test Equipment- See "TEST EQUIPMENT INFORMATION"
Samples - See "TEST SAMPLE IDENTIFICATION"

Instructions -
+ - When all tests are conducted by one person, printed name and signature can be inserted here instead of including printed name and signature on each page containing data. Must indicate number of pages in the data package.
++ - When test conducted by more than one person, printed name and signature of person conducting the test can be inserted next to the test name instead of including printed name and signature on each page containing data. Must indicate number of pages in the data package.

Special Instructions -

[] Unless specified otherwise in the individual Methods, the tests shall be conducted under the following ambient conditions. Confirmation of these conditions shall be recorded at the time the test is conducted.

Ambient Temperature, C	_____ ± _____	Relative Humidity, %	_____ ± _____	Barometric Pressure, mBar	_____ ± _____
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[] No general environmental conditions are specified in the Standard(s) or have been identified that could affect the test results or measurements.

[x] The tests shall be conducted under the ambient conditions where specified in the individual Methods. Confirmation of these conditions shall be recorded at the time the test is conducted. Otherwise, where ambient conditions are not specified in the individual Methods, no general environmental conditions are specified in the Standard(s) or have been identified that could affect the test results or measurements.

The Class A Fire Extinguishment Tests - Deep Seated Fire Test And Class A Fire Extinguishment Tests - Wood Fiber Board Penetration performed under datasheet package(s) dated 2007-08-17 are to be repeated due the following reasons:

CLASS A FIRE EXTINGUISHMENT TESTS - DEEP SEATED FIRE TEST
- steel rod temperature was not recorded

CLASS A FIRE EXTINGUISHMENT TESTS - WOOD FIBER BOARD PENETRATION
- to verify consistency

Test not performed based on acceptance criteria of average weight loss of solution being less than average weight loss when tested with water under data sheet package 2007-08-11

The following changes in the test methods will be made as corrective action to promote repeatability and/or comply with the specifications:

CLASS A FIRE EXTINGUISHMENT TESTS - DEEP SEATED FIRE TEST
- steel rod temperature to be recorded

CLASS A FIRE EXTINGUISHMENT TESTS - WOOD FIBER BOARD PENETRATION
- Wood fiber board to be conditioned at 70 ±5°F (21 ±2.8°C) and 50 ±10% relative humidity for at least 24 hours prior to test
- Runoff to be measured within 15 minutes of the end of liquid runoff
- Wood fiber board to be conditioned at 70 ±5°F (21 ±2.8°C) and 50 ±10% relative humidity for at least 7 days following test. If conditioning duration is greater than 7 days, the duration shall be noted.

-Test not performed based on acceptance criteria of average weight loss of solution being less than average weight loss when tested with water under data sheet package 2007-08-11.

GENERAL INFORMATION: PREMIX SOLUTION PREPARATION

Premix solutions are to be determined by the following equations (as appropriate).

$$C = \left(\frac{V_c}{V_c + V_w} \right) = \left(\frac{V_c}{V_s} \right)$$

Where,

C = Premix solution concentration, percent
V_c = Volume of concentrate (solute)
V_w = Volume of water (solvent)
V_s = Volume of solution

Note: All units of volume are to be the same.

If the specific gravity of the concentrate (solute) is known, then the solution can be determined by weight assuming the specific gravity of water (solvent) is 1.0.

$$C = \left(\frac{V_c}{V_c + V_w} \right) = \left(\frac{V_c}{V_s} \right) = \left(\frac{\frac{W_c}{SG_c}}{\frac{W_c}{SG_c} + \frac{W_w}{SG_w}} \right)$$

Where,

C = Premix solution concentration, percent
V_c = Volume of concentrate (solute)
V_w = Volume of water (solvent)
V_s = Volume of solution
W_c = Weight of concentrate (solute)
SG_c = Specific gravity of concentrate (solute)
W_w = Weight of water (solvent)
SG_w = Specific gravity of water (solvent)

Note: All units of volume are to be the same and all units of weight are the same.

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Tested by:

Date 2008-10-24

Printed Name

Signature

TEST EQUIPMENT INFORMATION

Inst. ID No.	Instrument Type	Test Number +, Test Title or Conditioning	Function/R ange	Last Cal. Date	Next Cal. Date
64F08MT	Tape Measure	1	0-25'	2008-05-27	2009-05-31
83F13MC	Caliper	1	0-6"	2008-05-15	2009-05-31
22FA5TI	Thermometer	1	50-300 Deg F	2008-04-15	2009-04-30
43F05THI	Humidity Sensor	1	0-100% R.H.	2008-07-14	2009-07-31
46FA2DTM	Thermocouple Thermometer	1	0-1999 Deg F	2008-02-28	2009-02-28
57F01SCL	Scale	1	0-1200 g	2008-02-28	2009-02-28
99565SW	Stop Watch	1	24 Hour	2008-03-19	2009-03-31

+ - If Test Number is used, the Test Number must be identified on the data sheet pages or on the Data Sheet Package cover page.

The M&TE used for tests ~~+~~ have ~~++ do not have~~ minimum required accuracy and range/functions, and ~~+~~ were ~~++ were not~~ calibrated to assure these levels.

Test equipment information is recorded on UL's Laboratory Project Management (LPM). (This statement may be selected only if datasheets are completed at a UL facility)

Critical Consumables:	
Critical consumables are compliant with test standard requirements.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

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TEST SAMPLE IDENTIFICATION:

The table below is provided to provide correlation of sample numbers to specific product related information. Refer to this table when a test identifies a test sample by "Sample No." only.

Sample Card No.	Date Received	<input checked="" type="checkbox"/> Test No.	Sample No.	Manufacturer, Product Identification and Ratings
0882191-001	2007-02-12	1,2	1	Baums Castorine, 5 gallon pails of "Novacool UEF Wetting Agent" wetting agent, Lot No. 06-335 _____

+ - If Test Number is used, the Test Number or Numbers the sample was used in must be identified on the data sheet pages or on the Data Sheet Package cover page.

Sampling Procedure - As noted on Data sheet and test sample identification.

CLASS A FIRE EXTINGUISHMENT TESTS - DEEP SEATED
FIRE TEST

NFPA 18-2006, 5.3.4.2

PRODUCT SPECIFICATIONS	
Wetting Agent Designation:	Novacool UEF Wetting Agent
Manufacturer's recommended concentration(s):	<input checked="" type="checkbox"/> 0.4% <input type="checkbox"/> to be determined by test.

EQUIPMENT, SETUP, AND CONSUMABLE DETAILS			
CYLINDRICAL BASKET		ROD	
Perforated sheet steel? [1]	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Steel?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Diameter, mm	114	Diameter, mm	35.1
Height, mm	178	Length, mm	34.5
Dimensions Acceptable? [1]	<input type="checkbox"/> Yes <input type="checkbox"/> No	Dimensions Acceptable?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Ginned cotton conditioned at 70 ±5°F (21 ±2.8°C) and 50 ±10% relative humidity for at least 24 hours prior to test?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

[1] Cylinder of Style 1/2 16F or 1/2 13F expanded and flattened steel sheet complying with dimensions of ASTM F1267. Cylinder bottom (grid) at least 350 mm × 350 mm of Style 3/4 9F expanded & flattened steel sheet complying with dimensions of ASTM F1267. Grid supports cross sectional dimension not greater than 40 mm & located at each corner perpendicular to grid.

DATA WITH WATER AS TEST LIQUID						
Deep Seated Fire Test No.	Test Liquid Quantity, cc	Weight of Cotton for bottom half of basket, g	Weight of Cotton for top half of basket, g	Rod Temperature, °C	Volume of Runoff, mL	Time Duration [2]
1	250	50	50	1100	215.2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	250	50	50	1100	193.9	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	250	50	50	1100	222.7	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

[2] Runoff Measured Within 15 minutes following test liquid application?

Notes:

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CLASS A FIRE EXTINGUISHMENT TESTS - DEEP SEATED
FIRE TEST (CONT'D)

NFPA 18-2006, 5.3.4.2

VERIFICATION OF SOLUTION CONCENTRATION ([] See Penetration Test No.(s): _____)				
Deep Seated Fire Test No(s).	Concentrate Quantity, mL	Water Quantity, mL	Solution Quantity, mL	Premix Concentration, %
4-6	4	996	1000	0.4

Note: One premix solution batch may be prepared for a test series.

DATA WITH SOLUTION AS TEST LIQUID									
Deep Seated Fire Test No.	Concentration, %	Test Liquid Quantity, cc	Cotton Weight, g		Rod Temperature, °C	Fire Extinguished	Volume of Runoff, mL	Time Duration [2]	Less Runoff than Water
			for bottom half of cylinder	for top half of cylinder					
4	0.4	250	50	50	1100	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	43	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5	0.4	250	50	50	1100	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	88.7	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6	0.4	250	50	50	1100	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	83	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

[2] Runoff Measured Within 15 minutes following test liquid application?

Notes:

Results: Acceptable [] Unacceptable

Test Date 2008-10-24

Tested by:

Date 2008-10-24

Printed Name

Signature

~~CLASS A FIRE EXTINGUISHMENT TESTS - WOOD FIBER BOARD PENETRATION~~

~~NFPA 18-2006, 5.3.4.3~~

PRODUCT SPECIFICATIONS	
Wetting Agent Designation:	Novaceol-UEF Wetting Agent
Manufacturer's recommended concentration(s):	[*] 0.3% [] to be determined by test.

EQUIPMENT, SETUP, AND CONSUMABLE DETAILS	
Grid of Perforated sheet steel? [1]	[] Yes [] No
Wood fiber board marked in accordance with ASTM C208?	[] Yes [] No
Wood fiber board conditioned at 70 ±5°F (21 ±2.8°C) and 50 ±10% relative humidity for at least 24 hours prior to test?	[] Yes [] No
All tests conducted on the same day with fiber insulation board squares prepared from the same fiber insulation board?	[] Yes [] No
Denatured Alcohol used as test fuel?	[] Yes [] No
Steel Pan Dimensions, mm [2]	

~~[1] Grid measuring at least 350 mm x 350 mm fabricated from Style 3/4 9F expanded and flattened steel sheet complying with the dimensions of ASTM F1267. Grid supports cross sectional dimension not greater than 40 mm and located at each corner perpendicular to grid.~~

~~[2] Length x Width x Depth~~

DATA WITH WATER AS TEST LIQUID					
Penetration Test No.	Test Liquid Quantity, mL	Wood Fiber Board Dimensions, mm [3]	Grid Height, mm	Wood Fiber Board Weight Before Test, g	Flame Exposure Duration, s
1					
2					
3					
Penetration Test No.	Volume of Runoff, mL	Time Duration? [4]	Wood Fiber Board Dried? [5]	Wood Fiber Board Weight After Drying, g	Wood Fiber Board Weight Loss, g
1		[] Yes [] No	[] Yes [] No		
2		[] Yes [] No	[] Yes [] No		
3		[] Yes [] No	[] Yes [] No		

~~[3] Length x Width x Thickness~~

~~[4] Runoff Measured Within 15 minutes following test liquid application?~~

~~[5] Wood fiber board conditioned at 70 ±5°F (21 ±2.8°C) and 50 ±10% relative humidity for at least 7 days following test? If conditioning duration is greater than 7 days, the duration shall be noted.~~

Test not performed based on acceptance criteria of average weight loss of solution being less than average weight loss when tested with water under data sheet package 2007-08-11.

Tested by:

Date 2008-10-24

Printed Name

Signature

~~CLASS A FIRE EXTINGUISHMENT TESTS - WOOD FIBER BOARD PENETRATION (CONT'D)~~

~~NFPA 18-2006, 5.3.4.3~~

VERIFICATION OF SOLUTION CONCENTRATION - ([] See Deep Seated Fire Test No.(s): _____)				
Penetration Test No.(s)	Concentrate Quantity, mL	Water Quantity, mL	Solution Quantity, mL	Premix Concentration, %

~~Note: One premix solution batch may be prepared for a test series.~~

DATA WITH SOLUTION AS TEST LIQUID							
Penetration Test No.	Concentration, %	Test Liquid Quantity, mL	Wood Fiber Board Dimensions, mm [3]	Grid Height, mm	Wood Fiber Board Weight Before Test, g	Flame Exposure Duration, s	Fire Extinguished?
4							[] Yes [] No
5							[] Yes [] No
6							[] Yes [] No

Penetration Test No.	Volume of Runoff, mL	Time Duration [4]	Less Runoff than Water?	Wood Fiber Board Dried? [5]	Wood Fiber Board Weight After Drying, g	Wood Fiber Board Weight Loss, g	Less Weight Loss than Water?
4		[] Yes [] No	[] Yes [] No	[] Yes [] No			[] Yes [] No
5		[] Yes [] No	[] Yes [] No	[] Yes [] No			[] Yes [] No
6		[] Yes [] No	[] Yes [] No	[] Yes [] No			[] Yes [] No

~~[3] Length x Width x Thickness~~

~~[4] Runoff Measured Within 15 minutes following test liquid application?~~

~~[5] Wood fiber board conditioned at 70 ±5°F (21 ±2.8°C) and 50 ±10% relative humidity for at least 7 days following test? If conditioning duration is greater than 7 days, the duration shall be noted.~~

~~Notes:~~

~~Results: [] Acceptable [] Unacceptable~~

~~Test not performed based on acceptance criteria of average weight loss of solution being less than average weight loss when tested with water under data sheet package 2007-08-11.~~

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