# SMI, Inc.

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(305) 971-7047 (305) 971-7048

Attn:

Jutta Zimmerman

25-Nov-2020

Ropimex R. Opel GmbH Bildstocker Strasse 12 66538 Neunkirchen

SMI/REF:

Date:

2008-012

Germany

Product:

BACOBAN DL (received 23-Sep-2020)

Dilution:

As received

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# AMS 1451C Disinfectant, Aircraft

For Use in Cargo Compartments

	사람이 되었다. 그는 사람들은 이 나는 아이를 보면 하는 것이 되었다면 하는 것이 없는데 되었다면 하는데 하는데 하는데 하는데 하는데 살아 없는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하	
3.2	Properties	
3.2.1	Flash Point	Conforms
3.2.2	Residue	Conforms
3.2.3	Corrosion of Metal Surfaces 3.2.3.1 Sandwich Corrosion 3.2.3.2 Total Immersion Corrosion	Conforms Conforms
3.2.4	Temperature Stability	Conforms
3.2.5	Effect on Painted Surfaces	Conforms
3.2.6	Effect on Transparent Plastics	Conforms
3.2.7	Storage Stability 3.2.7.1 Short-Time Test 3.2.7.1.2 Long-Time Storage	Does not conform  Not performed
3.3	Quality	Conforms

Respectfully submitted,

Patricia D. Viani, SMI Inc.

Ropimex R. Opel GmbH

Product:

BACOBAN DL

Dilution: **AMS 1451C**  As received

Date: SMI/REF: 25-Nov-2020 2008-012

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3.2 Properties: Disinfectant shall conform to the following requirements; tests shall be performed in accordance with specified test methods on the disinfectant supplied in concentrated form:

3.2.1 Flash Point: Disinfectant shall not exhibit a flash point lower than 65°C (149°F) determined in accordance with ASTM D 56.

#### AS RECEIVED: No Flash Point to \*(IBP) 100 °C (212°F) \*Initial Boiling Point

Result

3.2.2 Residue: Two 2" x 6" (51 x 152 mm) panels of AMS4049 aluminum alloy shall be degreased with a suitable solvent and immersed in a sufficient quantity of the disinfectant to cover approximately one-half of the panel. After the disinfectant has been applied, the panels shall be placed at 45 degrees from the horizontal in an oven maintained at 38°C ±1°C (100°F ± 2°F) for 30 minutes ± 1 minute, removed from the oven, rinsed with room temperature methyl ethyl ketone, or other suitable solvent and allowed to dry. The treated and untreated areas of the panel shall be visually examined and compared; there shall be no residue or stains on the treated or untreated surfaces

> AS RECEIVED: No residue or stains

> > Conforms Result

Conforms

- 3.2.3 Corrosion of Metal Surfaces:
- 3.2.3.1 Sandwich Corrosion: Specimens of AMS4049 aluminum alloy, after test, shall show a rating not worse than one or not worse than control panels using ASTM D 1193, Type IV water determined in accordance with ASTM F1110.

	RATING: AMS 4049 ALCLAD ALUMINUM	
AS RECEIVED	1	
CONTROL	1	

Result	Conforms

Client:	Ropimex R. Opel	GmbH	Date:	25-Nov-2020
Product:	BACOBAN DL		SMI/REF:	2008-012
Dilution:	As received			
AMS 1451C		sion: Disinfectant shall neithe	Page 3 of 4	
4049	aluminum alloy, of AS RECEIVED: "+" indicates weight	ght gain	n ASTM F48	3.
		Resul	t Con	forms
3.2.4 <u>Tempe</u> includir	ng evidence of disc	sinfectant shall show no chemicoloration, layering, or other chaurs ± 1 hour at 2° C ± 3°C (36	ange denotin	al deterioration, g loss of stability
after ex	AS RECEIVED:	No physical or chemical		n
after ex			deterioratio	orms

AS RECEIVED: No decrease in film hardness. No evidence of streaking, discoloration or blistering.

Result	Conforms	
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3.2.6 Effect on Transparent Plastics: Disinfectant shall not craze, stain, or discolor Type C acrylic plastic, determined in accordance with ASTM F484. Disinfectant shall not craze, stain or discolor AMS-P-83310 polycarbonate plastic, determined in accordance with test procedures specified in ASTM F484 on specimens stressed for 10 minutes ± 1 minute to an outer fiber stress of 2000 psi (13.8 MPa).

	AS RECEIVED
Type C Acrylic (MIL-P-25690) [4500 psi / 8 hours]	No craze, stain nor discoloration
Polycarbonate (AMS-P-83310) [2000 psi / 10 minutes]	No craze, stain nor discoloration

Result	Conforms		

Ropimex R. Opel GmbH

Product:

BACOBAN DL

Dilution: AMS 1451C As received

SMI/REF:

25-Nov-2020 2008-012

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3.2.7 Storage	e Stability:			

3.2.7.1 Short-Time Test: Disinfectant shall remain homogeneous and free of lumps and skin formation and shall show no evidence of layering, separation, settling or crystallization, determined on samples subjected to five freeze-thaw cycles as in 3.2.7.1.1.

CONCENTRATE:

Product did not remain homogeneous; evidence of layering\* (color separation: clear upper layer, pinkish lower layer)

Result\_\_\_\*Does not conform

3.2.7.1.2 Long-Time Storage: Disinfectant shall be stable or shall be restorable to its original appearance by moderate shaking and shall meet all of the other properties of 3.2 when stored in shipping container or use package for not less than 12 months from date of receipt by purchaser or within manufacturer's shelf life of the product, determined in accordance with ASTM F1104.

Not	performed	37 3
	Not	Not performed

3.3 Quality: Disinfectant, as received by purchaser, shall be a uniform mixture, shall show no separation or layering, and shall be free from foreign materials detrimental to usage of the disinfectant.

Result	Conforms	
	0 0111011110	

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Germany

Product:

3.2.1

3211

BACOBAN DL (received 23-Sep-2020)

Dilution: As received

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DISINFECTANT, AIRC	CRAFT; GENERAL PURPOSE
Concentrated Disinfectant	(fluid was tested "as received")

**AMS 1452C** 

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3.2.1.2 Accelerated Storage Stability

3.2.1.2.1 **Elevated Temperature** 

Flash Point

3.2.1.2.2 Cold Temperature

3.2.2

Concentrated Disinfectant and At Use Dilution (fluid was tested "as received") 3.2.2.1 Corrosion of Metal Surfaces

3.2.2.1.1 **Total Immersion Corrosion** 

3.2.2.1.2 Sandwich Corrosion

3.2.2.2 Effect on Aircraft Materials

3.2.2.2.1 Effect on Transparent Plastics 3.2.2.2.2

Effect on Painted Surfaces

3.2.2.2.3 Effect on Rubber

3.2.2.2.4 Effect on Vinyl Surfaces

3.2.2.2.5 Effect on Tedlar Surfaces

3.2.3 Long Term Storage Stability

Conforms

Not performed

Respectfully submitted.

Patricia D. Viani, SMI Inc.

Ropimex R. Opel GmbH

BACOBAN DL

Product: Dilution: AMS 1452C

As received

Date:

25-Nov-2020

SMI/REF: 2008-012

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3.2.1 Concentrated Disinfectant: (fluid was tested "as received")

3.2.1.1 Flash Point: Shall be not lower than 100°C (212°F), determined in accordance with ASTM D56.

As received: No Flash Point observed to 100°C (212°F)

Dooult	Canfarma
Result	Conforms

- 3.2.1.2 Accelerated Storage Stability: Disinfectant shall remain homogeneous and shall show no evidence of layering, separation, settling, or crystallization, determined in accordance with 3.2.1.2.1 and 3.2.1.2.2.
- 3.2.1.2.1 Elevated Temperature: One 6-ounce (175-ml) sample of the product shall be placed in an 8-ounce (250-ml) clear glass bottle and sealed and, from that time until the test is completed, shall be handled so as to minimize movement of the sample. The jar shall be exposed for 120 hours ± 1 at 122°F ± 5 (50°C ± 3). At the end of the 120 hour period, remove sample to a room temperature environment, and allow to cool completely and examine for conformance to 3.2.1.2

As received: Homogeneous; no evidence of layering / separation

Result	Conforms	
1.00011	00111011110	

3.2.1.2.2 Cold Temperature: One 6-ounce (175-ml) sample of the product shall be placed in an 8-ounce (250-ml) clear glass bottle and sealed and, from that time until the test is completed, shall be handled so as to minimize movement of the sample. The jar shall be exposed for 120 hours ± 1 at 14°F ± 5 (-10°C ± 3). At the end of the 120 hour period, remove sample to a room temperature environment, and allow to cool completely and examine for conformance to 3.2.1.2

As received: Homogeneous; no evidence of layering / separation

D 14	0 (	
Result	Conforms	

- 3.2.2 Concentrated Disinfectant and At Use Dilution: (fluid was tested "as received")
- 3.2.2.1 Corrosion of Metal Surfaces:
- 3.2.2.1.1 <u>Total Immersion Corrosion</u>: Disinfectant shall neither cause staining, pitting, or corrosion nor cause an average weight change of AMS 4049 alclad aluminum alloy panels greater than 0.3 mg/cm² per 24 hours, determined in accordance with ASTM F 483.

AS RECEIVED: + 0.01 mg/cm<sup>2</sup>/24hrs

"+" indicates weight gain

Result	Conforms

**AMS 1452C** 

Ropimex R. Opel GmbH

BACOBAN DL

Dilution: As received

Date:

25-Nov-2020

SMI/REF: 2008-012

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3.2.2.1.2 Sandwich Corrosion: Specimens of AMS 4049 alclad aluminum alloy, after test, shall show a rating not worse than 1 or not worse than control panels using ASTM D 1193, Type VI water, determined in accordance with ASTM F1110.

	RATING: AMS 4049 ALCLAD ALUMINUM
AS RECEIVED	1
CONTROL	1

Result	Conforms	

- 3.2.2.2 Effect on Aircraft Materials:
- 3.2.2.2.1 Effect on Transparent Plastics: Disinfectant shall not craze, stain, or discolor Type C acrylic plastic, determined in accordance with ASTM F484. Disinfectant shall not craze, stain, or discolor AMS-P-83310 polycarbonate plastic, determined in accordance with test procedures specified in ASTM F484 on specimens stressed for 10 min. ± 1 to an outer fiber stress of 2000 psi (20MPa).

	AS RECEIVED
Type C Acrylic (MIL-P-25690) [4500 psi / 8 hours]	No craze, stain nor discoloration
Polycarbonate (AMS-P-83310) [2000 psi / 10 minutes]	No craze, stain nor discoloration

	경기가 있다고 있는 사람들이 하는 것이 없는 것이다.	
Result_	Conforms	

3.2.2.2.2 Effect on Painted Surfaces: Disinfectant shall neither decrease the hardness of the paint film by more than two pencil hardness levels nor shall it produce any streaking, discoloration, or blistering of the paint film, determined in accordance with ASTM F502.

AS RECEIVED:

No decrease in film hardness. No evidence of streaking, discoloration or blistering.

Result	Confor	ms			

Ropimex R. Opel GmbH

Product:

**BACOBAN DL** 

Dilution: AMS 1452C As received

Date:

25-Nov-2020 2008-012

SMI/REF:

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3.2.2.2.3 Effect on Rubber: Disinfectant shall neither cause more than 25% loss of tensile strength and 25% loss in elongation nor cause more than ± 15% change of volume, when tested on material specified by the purchaser, in accordance with ASTM D 471. The test conditioning shall be performed at room temperature and the immersion period shall be 24 hours.

Note: BMS 1-72 silicone rubber was utilized for this test

BMS 1-72 Rubber	Swelling	Change in elongation	Change in tensile strength	Result
AS RECEIVED	< 5%	< 5%	< 15%	Conforms

Result Conforms

3.2.2.4 Effect on Vinyl Surfaces: Disinfectant shall neither cause scratching nor more than a minimal color change or staining, when tested in accordance with ASTM F2109.

AS RECEIVED:

No scratching / discoloration

Result\_\_\_\_Conforms

3.2.2.2.5 <u>Effect on Tedlar Surfaces</u>: Disinfectant shall neither cause scratching nor more than a minimal color change or staining, when tested in accordance with ASTM F2109.

AS RECEIVED:

No scratching / discoloration

Result Conforms

3.2.3 Long Term Storage Stability: The disinfectant, as delivered, shall be tested in accordance with ASTMF1104, and shall be restorable to its original appearance by moderate shaking, and shall meet all technical requirements after the storage stability period of 1 year.

Result Not performed

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SMI/REF:

2008-012

66538 Neunkirchen Germany

Product:

BACOBAN DL (received 23-Sep-2020)

Dilution:

As received

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# BOEING SPECIFICATION SUPPORT STANDARD BSS7432

## **EVALUATION OF AIRPLANE MAINTENANCE MATERIALS**

(Version: Original issue, 28-May-2019 / supersedes Boeing D6-17487) (Note: Boeing D6-17487 was cancelled and superseded by BSS7432 on 28-May-2019)

Category: Exterior and General Cleaners and Liquid Waxes, Polishes and Polishing Compounds

Sandwich Corrosion Test

Acrylic Crazing Test

Paint Softening Test

Conforms

Conforms

Hydrogen Embrittlement Test

Conforms

Respectfully submitted,

Patricia D. Viani, SMI, Inc.

Ropimex R. Opel GmbH

Product: BACOBAN DL

Dilution: As received

BSS7432 (Exterior & General)

Date: SMI/REF:

25-Nov-2020 2008-012

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Sandwich Corrosion Test: Specimen preparation, testing, and interpretation must be in accordance with ASTM F1110 using the following materials and with the following exceptions:

a. Reagents and materials exception:

Clad 7075-T6 aluminum alloy in accordance with AMS-QQ-A-250/13 (AMS 4049 or AMS-QQ-A-250/13 optional) (2024-T3 Alclad specimens are neither required nor optional.)

(2) Bare 7075-T6 aluminum alloy in accordance with AMS-QQ-A-250/12 (AMS 4045 or AMS-Q-A-250/12 optional) anodized in accordance with BAC 5019

or MIL-A-8625, Type I.

(3) Anodize must be sealed. (2024-T3 nonclad specimens are neither required nor optional).

(4) Distilled or deionized water may be used in place of ASTM F1193, Type IV

reagent grade water for control specimens.

(5) The filter paper may be Whatman No. 5 or equivalent in place of Whatman GFA glass fiber paper.

b. Procedure exceptions:

(1) The filter paper strips must be 1 by 3 inches and must be placed in the center of the sandwiched specimens.

(2) Each sandwich specimen must be held together with waterproof tape, with no more than 1 piece of tape (maximum width 0.75 inch) on each of two opposite edges.

c. Interpretation of result exceptions:

 Leaching or lightening of the chromate sealed anodize coating must not be cause for rejection.

(2) Deposits or residues from the material being tested that are not products of

corrosion of the test panel surface must not be cause for rejection.

(3) Special procedure for evaluation of fire extinguishing foams and liquids. Panels with very light darkening or staining, which have no obvious metal attack or pitting, may be swabbed (cotton-tipped swabs or cotton gauze) with a 0.26 mole/liter sulfuric acid solution and re-examined. If the coloration is substantially removed and there is no evidence of metal attack or pitting, the condition must not be cause for rejection. (The 0.26 mole/liter sulfuric acid solution can be prepared by adding 1.5 cc of concentrated sulfuric acid (SG = 1.84) to 100 cc of distilled or deionized water.

(4) Panels must have a rating of 1 (no more than 5 percent of the surface area must be corroded) or better in accordance with ASTM F 1110. The preferred method of determining the corroded area is by using image analysis. Other means approved by the purchaser may be substituted.

(5) Any corrosion in excess of that shown by the control group must be cause

for rejection.

Ropimex R. Opel GmbH

Date:

25-Nov-2020

Product:

BACOBAN DL

SMI/REF:

2008-012

Dilution:

As received

BSS7432 (Exterior & General)

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# Sandwich Corrosion Test: continued

	Bare 7075-T6 (AMS 4045) Anodized per BAC 5019 (Type 3 chromate seal)	Clad 7075-T6 Aluminum (AMS 4049)	
PRODUCT	1	1	
Control	1	1	

D	C		
Result	Conforms	No.	

## Acrylic Crazing Test:

The material being tested must not craze, crack, or etch acrylic test specimens when tested in accordance with ASTM F 484 using Type C (stretched acrylic plastic in accordance with MIL-P-25690) stressed to an outer fiber stress of 4500 psi.

PRODUCT: No crazing, cracking, or etching

Result	Conforms
Nesult	Comorns

# Paint Softening Test Procedure:

- Testing must be in accordance with ASTM F502 using the following coating systems.
  - (1) <u>BMS 10-79</u>, Type II primer applied in accordance with <u>BAC5882</u> plus <u>BMS 10-60</u>, Type II enamel in accordance with <u>BAC5845</u>.
  - (2) BMS 10-79, Type III primer applied in accordance with BAC5882, plus BMS 10-100 coating in accordance with BAC5797.
- b. Three specimens conforming to Section 7.7.a.(1) and three specimens conforming to Section 7.7.a.(2) must be used for each test condition.
- c. The material being tested must not produce a decrease in film hardness greater than two pencils, or any discoloration or staining.

NOTE: Slight darkening of the <u>BMS 10-100</u> surface is acceptable.

PRODUCT:

Paint system 1: 0 pencil hardness change after 24 hour post-exposure dry time.

No discoloration or staining.

Paint system 2: 0 pencil hardness change after 24 hour post-exposure dry time.

No discoloration or staining.

Result	Conforms	

Ropimex R. Opel GmbH

BACOBAN DL

Product:

As received

BSS7432 (Exterior & General)

Date:

25-Nov-2020

SMI/REF: 2008-012

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# Hydrogen Embrittlement Test:

Hydrogen Embrittlement testing must be in accordance with ASTM F 519 using cadmium plated Type 1a.2, Type 1c, or Type 2a specimens. All requirements of ASTM F519 for specimens, preparation, testing, and reporting must apply. Type 1a.2 specimens must meet the requirements of D6-4307.

Specimens: Type 1c, cadmium plated per MIL-STD-870. (45% load, 150 hours, notched immersed for the duration, room temp.)

As received:

#1: No failure occurred within 150 hours.

#2: No failure occurred within 150 hours.#3: No failure occurred within 150 hours.#4: No failure occurred within 150 hours.

Result Conforms

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2008-012

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Product:

BACOBAN DL (received 23-Sep-2020)

Dilution:

As received

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## **BOEING SPECIFICATION SUPPORT STANDARD** BSS7434

# CHEMICAL COMPATIBILITY OF CLEANING PRODUCTS AND INTERIOR PARTS/MATERIALS OF COMMERCIAL TRANSPORT AIRCRAFT

(Version: Original issue, 04-Jun-2019) Supersedes Boeing D6-7127

(Note: Boeing D6-7127 was cancelled and superseded by BSS7434 on 04-Jun-2019)

5.1	Sandwich Corrosion	Conforms
5.2	Immersion Corrosion Test	Conforms
5.3	Rubber Test	Conforms
5.4	Sealant Test	Does not conform
5.5	Painted Surface Test	Conforms
5.6	Tedlar Surface Test	Conforms
5.7	Vinyl Surface Test	Conforms
5.8	Fabric and Carpet Test	Conforms
5.9	Leather and Naugahyde Test	Conforms
5.10	Flash Point Test	Informational
5.11	Polycarbonate Crazing Test	Conforms

Respectfully submitted,

Patricia D. Viani, SMI Inc.

Ropimex R. Opel GmbH

Product:

**BACOBAN DL** 

Dilution: BSS7434 As received

Date: SMI/REF: 25-Nov-2020 2008-012

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### **PROCEDURE**

# 7.a Cleaning materials must be tested in accordance with BAC5150 test requirements.

# 5.1 / 7.1 Sandwich Corrosion Test

Requirement (BAC5150 / 11.3.1): Corrosion in excess of that on the control panel constitutes failure when tested in accordance with the procedures section for sandwich corrosion in BSS7434.

	CLAD 7075-T6 ALUMINUM (AMS 4049)	BARE 7075-T6 (AMS-QQ-A-250/12) ANODIZED PER MIL-A-8625 TYPE I (with dichromate seal)
PRODUCT (AS RECEIVED)	1	1
CONTROL (D.I WATER)	1	1

ResultConforms	
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# 5.2 / 7.2 Immersion Corrosion Test

Requirement (BAC5150 / 11.3.2): The average weight change of each test specimen shall not exceed ± 10 mg in a 24 hour immersion period when tested in accordance with the procedures section for immersion corrosion in BSS7434.

	PRODUCT (AS RECEIVED) (Loss per 1" x 2" panel)
Clad 2024-T3 aluminum (AMS-QQ-A-250/5)	1.0 mg
Bare 2024-T3 aluminum (AMS-QQ-A-250/4) alodined per MIL-C-5541	< 1.0 mg
Bare 2024-T3 aluminum (AMS-QQ-A-250/4) anodized per MIL-A-8625 Type I	1.0 mg
Bare 7178-T6 aluminum (AMS-QQ-A-250/14) anodized per MIL-A-8625 Type I	1.1 mg

Result	Conforms	

#### 5.3 / 7.3 Rubber Test

Requirement (BAC5150 / 11.3.3): Changes in properties must not exceed the following, when tested in accordance with the procedures section for rubber test in BSS7434.

PROPERTY RUBBER: BMS1-72* *Note: BMS1-63 replaced with BMS1-72 according to Triangle Rubber Co.	MAX. CHANGE ALLOWED	PRODUCT (AS RECEIVED)
Tensile Strength	25 % loss	< 15%
Elongation	25 % loss	< 5%
Volume	<u>+</u> 15% change	< 5%

24 hour immersion at room temperature

Result	Conforms	

Ropimex R. Opel GmbH

Product:

BACOBAN DL

Dilution: BSS7434 As received

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SMI/REF 2008-012

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#### 5.4 / 7.4 Sealant Test

Requirement (BAC5150 /11.3.4): The sealant must not lift at the edges or lose adhesion when tested in accordance with the procedures section for sealant test in BSS7434.

Sealant: BMS 5-95

Water control: No lifting or loss of adhesion when pried away from edge

PRODUCT (AS RECEIVED):

Lifting / loss of adhesion when pried away from edge

Result Does not conform

### 5.5 / 7.5 Painted Surface Test

Requirement (BAC5150 / 11.3.5): When tested in accordance with the procedures section for painted surface test in BSS7434 and Section 7.c, the following is required:

Exposure: 2 minutes, then rinsed

- a. Paint film hardness shall not decrease more than 2 pencil hardnesses.
- b. Greater than minimal color change or staining constitutes test failure.

Paint System: BMS10-83 enamel prepared in accordance with BAC5755

#### PRODUCT (AS RECEIVED):

Hardness change:

< 2 pencil hardness change

Color change (AATCC Gray Scale): Grade 5 / minimal to none

(No perceived difference in color or contrast between original material and tested specimen).

Result Conforms

#### 5.6 / 7.6 Tedlar Surface Test

Requirement (BAC5150 / 11.3.6): When tested in accordance with the procedures section for tedlar surface test in BSS7434 and Section 7c., the following is required:

Exposure: 2 minutes, then rinsed

- a. Greater than minimal color change or staining constitutes test failure.
- b. Examine for scratches

#### PRODUCT (AS RECEIVED):

Color change (AATCC Gray Scale): Grade 5 / minimal to none (No perceived difference in color or contrast between original material and tested specimen). No scratches

> Result Conforms

### 5.7 / 7.7 Vinyl Surface Test

Requirement (BAC5150 / 11.3.7): When tested in accordance with the procedures section for vinyl surface test in BSS7434 and Section 7c., the following is required:

Exposure: 2 minutes, then rinsed

- a. Cracking or brittleness of exposed specimen constitutes test failure.
- b. Greater than minimal color change or staining constitutes test failure.

PRODUCT (AS RECEIVED): No cracking or brittleness Color change (AATCC Gray Scale): Grade 5 / minimal to none (No perceived difference in color or contrast between original material and tested specimen).

D 14	0
Result	Conforms

Ropimex R. Opel GmbH

Product: Dilution:

BACOBAN DL

BSS7434

As received

Date:

25-Nov-2020

SMI/REF:

2008-012

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5.8 / 7.8 Fabric and Carpet Test

Requirement (BAC5150 / 11.3.8): When tested in accordance with the procedures section for fabric and carpet test in BSS7434 and Section 7c., the following is required:

## Upholstery:

a. Greater than minimal color change or staining constitutes test failure. PRODUCT (AS RECEIVED):

Color change (AATCC Gray Scale): Grade 5 / minimal to none (No perceived difference in color or contrast between original material and tested specimen).

> Result Conforms

b. Flammability: maximum values:

PROPERTY	MAXIMUM VALUE	FABRIC (cut perpendicular "fill")	FABRIC (cut parallel "warp")
Extinguishing Time	15 seconds	Less than 3 seconds	Less than 3 seconds
Burn Length	8 inches	6 inches	6 inches
Drip Extinguish Time	5 seconds	Less than 3 seconds	Less than 3 seconds

Result	Conforms	
		the state of the s

## Carpet:

a. Greater than minimal color change or staining constitutes test failure. PRODUCT (AS RECEIVED):

Color change (AATCC Gray Scale): Grade 5 / minimal to none (No perceived difference in color or contrast between original material and tested specimen).

Result Conforms b. Flammability: maximum values:

PROPERTY	MAXIMUM VALUE	CARPET (cut perpendicular "fill")	CARPET (cut parallel "warp") Less than 3 seconds	
Extinguishing Time	15 seconds	Less than 3 seconds		
Burn Length	8 inches	4 inches	4 inches	
Drip Extinguish Time	5 seconds	Less than 3 seconds	Less than 3 seconds	

Result_	Conforms	

Ropimex R. Opel GmbH

Product:

BACOBAN DL

Dilution: BSS7434 As received

Date: SMI/REF: 25-Nov-2020 2008-012

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5.	9	17.9	Leather	and	Naugah	yde Test

Requirement (BAC5150 / 11.3.9): When tested in accordance with the procedures section for leather and naugahyde in BSS7434 and Section 7c., the following is required:

#### Leather:

- Cracking or brittleness of exposed specimen constitutes test failure. a.
- Greater than minimal color change or staining constitutes test failure. b.

PRODUCT (AS RECEIVED): No cracking or brittleness Color change (AATCC Gray Scale): Grade 5 / minimal to none (No perceived difference in color or contrast between original material and tested specimen).

> Result Conforms

## Naugahyde:

- Cracking or brittleness of exposed specimen constitutes test failure. a.
- b. Greater than minimal color change or staining constitutes test failure.

PRODUCT (AS RECEIVED): No cracking or brittleness Color change (AATCC Gray Scale): Grade 5 / minimal to none (No perceived difference in color or contrast between original material and tested specimen).

Result	Conforms
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## 5.10 / 7.10 Flash Point Test

Requirement (BAC5150 / 11.3.10): All cleaning candidates having a flash point must be approved by Fire Protection Engineering before they can be evaluated for use. Method used ASTM D93.

PRODUCT (AS RECEIVED): No Flash point observed to IBP: 212 °F (IBP = Initial Boiling Point)

> Informational Result

## 5.11 / 7.11 Polycarbonate Crazing Test

Requirement (BAC5150 / 11.3.11): Any cracking or crazing of the polycarbonate sheet constitutes failure, when tested in accordance with the procedures section for polycarbonate crazing test in BSS7434.

(Strain = 0.008; 10 minute exposure)

PRODUCT (AS RECEIVED):

LEXAN 9600: BMS8-400 BAC 70913: No cracking or crazing No cracking or crazing

> Result Conforms