Test Report For:

Company Name

SEFA 8M – 2010 RECOMMENDED TESTING STANDARDS FOR LABORATORY CASEWORK

Metal Laboratory Products

Andrew Barber
Project Manager

Bryan Stratton
Reviewer

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Attention: Name
Company
Address
City, State, Zip
Phone:
Email:

DATE RECEIVED: Date
DATES TESTED: Date to Date

DESCRIPTION OF SAMPLES:
Part Description: Metal Furniture Products.
Condition of Test Sample: New

WORK REQUESTED/APPLICABLE DOCUMENTS:
To test the submitted samples per the SEFA 8W – 2010 Laboratory Furniture Standards:

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<th>Test Description</th>
</tr>
</thead>
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<td>Hot Water Test</td>
</tr>
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<td>10.2</td>
<td>Finish Impact Test</td>
</tr>
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<td>10.4</td>
<td>Paint Adhesion On Steel</td>
</tr>
<tr>
<td>10.5</td>
<td>Paint Hardness On Steel</td>
</tr>
</tbody>
</table>

CONCLUSION:
The submitted samples are certified to meet the acceptance criteria of the tests listed above. The tested product is fully compliant with SEFA 8M-2014.
# TEST EQUIPMENT:

<table>
<thead>
<tr>
<th>Asset</th>
<th>Description</th>
<th>Manufacturer</th>
<th>Cal Date</th>
<th>Cal Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>138012</td>
<td>SCALE / 0-1,000 #</td>
<td>FAIRBANKS</td>
<td>11/30/2010</td>
<td>11/30/2011</td>
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<tr>
<td>138914</td>
<td>FORCE GAUGE</td>
<td>CHATILLON/AMETEK</td>
<td>03/29/2011</td>
<td>03/29/2012</td>
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<tr>
<td>138185</td>
<td>STOPWATCH</td>
<td>SPER SCIENTIFIC</td>
<td>12/08/2010</td>
<td>12/08/2011</td>
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<tr>
<td>138132</td>
<td>CALIPERS 6&quot;</td>
<td>FOWLER</td>
<td>08/16/2011</td>
<td>08/16/2012</td>
</tr>
<tr>
<td>138112</td>
<td>GRADUATED RULE 36&quot;</td>
<td>STARRETT</td>
<td>08/27/2008</td>
<td>08/27/2013</td>
</tr>
<tr>
<td>138100</td>
<td>DRAWER CYCLE MACH (3)</td>
<td>ENTELA</td>
<td>VBU</td>
<td>VBU</td>
</tr>
<tr>
<td>138002</td>
<td>25 LB BAG WEIGHTS (96)</td>
<td>FAIRBANKS</td>
<td>11/24/2006</td>
<td>VBU</td>
</tr>
<tr>
<td>138167</td>
<td>WEIGHT BAGS 20#</td>
<td>INTERTEK</td>
<td>VBU</td>
<td>VBU</td>
</tr>
</tbody>
</table>
4.2 BASE CABINET LOAD TEST:

Date Tested: March 10, 2011
Condition of Test Sample: New

4.2.2 Test Procedure:
Test Method: Verify that the cabinet is level. Load the cabinet top by using 2000 pounds (907.0 Kg) of solid steel bars (per Section #3.1) stacked 5 high and evenly spaced. After 24 hours, unload the cabinet.

Number of Samples Tested: One (1)

4.2.3 Acceptance Level:
The cabinet will have no signs of permanent failure.

Results:
The submitted sample meets the acceptance criteria for the test described above. Refer to the following page for photograph.
Cabinet Load Test
4.3 BASE CABINET CONCENTRATED LOAD TEST:
Date Tested: March 10, 2011
Condition of Test Sample: New

4.3.2 Test Procedure:
Test Method: Using 50 lb solid weights (per Section #3.1), apply a total of 200 pounds (90.70 Kg) to the top of the cabinet along the cabinet centerline. After a period of 24 hours operate doors and drawers, then remove load.

Number of Samples Tested: One (1)

4.3.3 Acceptance Level:
Under condition of test load, doors and drawer shall operate normally.

Results:
The submitted sample meets the acceptance criteria for the test described above. Refer to the following page for photograph.
Concentrated Load Test
5.1 DOOR HINGE TEST:
Date Tested: Date
Condition of Test Sample: New

5.1.2. Test Procedure:
Test Method: Remove the shelf for this test. With unit and top set as described in Section #4.1, add sufficient weight to the top in order to prevent overturning. With cabinet door opened 90-degrees, hang a sling made up of two 100 pound (45.35 Kg) weights (shot bags or solid weights) over top of the door at a point 12” (304.8mm) out from the hinge center-line. Slowly move door through the five cycles of the hinge up to a 160-degree arc. Remove weight and swing door through its full intended range of motion and close door.

Number of Samples Tested: One (1)

5.1.3 Acceptance Level:
The open door shall withstand a load of 200 pounds (90.70 Kg) when applied at a point 12” (304.8mm) from the hinge centerline without significant permanent distortion. Operation of the door, after test, shall show no significant permanent distortion that will cause binding of the door or hinges or that will adversely affect operation of the catch.

Results:
The submitted sample meets the acceptance criteria of the test. The door operated normally through its entire range of motion, and the door catch still operated normally.
Door Hinge Test
5.1 DOOR IMPACT TEST:

Date Tested: Date
Condition of Test Sample: New

5.1.2. Test Procedure:

Test Method: With unit and top set as described in Section 4.1, add sufficient weight to the top in order to prevent overturning. A 20lb (9.07Kg) sand bag (per Section 3.1) shall be suspended and dropped to provide an impact of 240inlb (27.1Nm) at the center of the closed door.

Number of Samples Tested: One (1)

5.2.3 Acceptance Level:
After the test the door and catch shall operate normally and show no signs of permanent damage. A dent or depression is an indication of permanent damage. This test is not intended to evaluate the cabinet finish.

Results:
The submitted sample meets the acceptance criteria of the test. The door operated normally through its entire range of motion, and the door catch still operated normally.
Door Impact Test
5.3 DOOR CYCLE TEST:

Dates Tested: Date to Date
Condition of Test Sample: New

5.3.2. Test Procedure:
Test Method: This test shall be in conformance to the ANSI test procedure A156.9, Grade 1, requirements for cycle testing of doors. A cycling mechanism shall swing door 90-degrees. Door shall operate for 100,000 cycles with a speed not greater than 15 cycles per minute.

Number of Samples Tested: One (1)

5.3.3 Acceptance Level:
Door shall operate for the full cycle period without deterioration that will significantly affect the function of the door. The door shall operate freely without binding.

Results:
There was no functional or structural damage to the unit. The doors operated freely without binding. The sample meets the acceptance criteria. Refer to the following page for photograph.
Door Cycle Test
6.1 DRAWER STATIC LOAD TEST:
Date Tested: Date
Condition of Test Sample: New

6.1.2. Test Procedure:
Test Method: With unit and top set as described in Section # 4.1, add sufficient weight to the top in order to prevent overturning. Open the drawer to 13” (330.2mm) of travel and hang 150 pounds (68.0 Kg) from the drawer head at the centerline of the drawer for five minutes. Remove the weight and operate the drawer through the full cycle.

Number of Samples Tested: One (1)

6.1.3. Acceptance Level:
There shall be no permanent damage that will interfere with the normal operation of the drawer and the drawer head should remain tightly fastened to the drawer.

Results:
The submitted sample met the acceptance criteria of the test. Refer to the following page for a photograph.
Drawer Static Load Test
6.2 DRAWER AND DOOR PULL TEST:

Date Tested: Date
Condition of Test Sample: New

6.2.2. Test Procedure:
Test Method: Pulls are to be installed in accordance with manufacturer's practice using specified attaching hardware and method. Block door and drawer closed. Using a cable, pulley and weight assembly, apply a force of 50 pounds (22.676 Kg) perpendicular to each pull. Revise setup to hang weight from each pull. Remove weight.

Number of Samples Tested: One (1)

6.2.3. Acceptance Level:
Pulls shall resist force and support weight without breakage. After completion of test and removal of weight, there shall be no significant permanent distortion. Some pull designs will require variations to set up apparatus. These pulls shall be tested in conformance to the applied pull forces.

Results:
There was no functional or structural damage to the unit. The drawer and door operated freely. The sample meets the acceptance criteria. Refer to the following pages for photographs.
Drawer and Door Pull Test
Drawer and Door Pull Test
Drawer and Door Pull Test
6.3 DRAWER IMPACT TEST:
Date Tested: Date
Condition of Test Sample: New

6.3.2. Test Procedure:
Test Method: Open drawer to 13” (330.2mm) of travel. Drop a 10 pound (4.54 Kg) sand or shot bag from a height of 24” (609.6mm) into the bottom of a drawer at the center of the width of the drawer and 6” (152.4mm) back from the inside face of the drawer. Remove the sand or shot bag.

Number of Samples Tested: One (1)

6.3.3. Acceptance Level:
Operate drawer through full cycle. Drawer shall operate normally. Any deformation will not cause binding or interfere with the operation of the drawer.

Results:
The submitted sample meets the above acceptance criteria. Refer to the following page for photograph.
Drawer Impact Test
6.4 DRAWER ROLLING IMPACT TEST:
Date Tested: March 18, 2011
Condition of Test Sample: New

6.4.2. Test Procedure:
Test Method: Position the drawer on a table at a 45-degree angle. Place a 2" (50.8mm) diameter by 12" (304.8mm) long steel rod (approximately 10 pounds (4.535 Kg) 13” (330.2mm) from the target impact area such that the rod will roll freely to impact the back of the drawer. Subject the back to three impacts and reverse the drawer to subject the front to three additional impacts.

Number of Samples Tested: One (1)

6.4.3. Acceptance Level:
The drawer shall show no signs (other than minor scratches and dents) of permanent damage. All joinery shall be intact and the drawer, when replaced in the unit, shall operate normally. Minor scratches and dents are acceptable.

Results:
The submitted sample meets the acceptance criteria of the test described.
Rolling Impact Test
6.5 DRAWER CYCLE TEST:
Date Tested: August 12, 2011
Condition of Test Sample: New

6.5.2. Test Procedure:
Test Method: Laboratory Load (100 pounds (45.35 Kg) – A static load of 100 pounds (45.35 Kg) (using ten 10 pound (4.535 Kg) load bags (per Section #3.1) shall be uniformly distributed in the drawer. Measure force required to activate the drawer. Operate from a closed position to within ¼" (6.35mm) of full extension for 50,000 cycles at a rate not to exceed 10 cycles per minute.

Number of Samples Tested: One (1)

6.5.3. Acceptance Level:
The drawer shall operate freely without evidence of dragging rubbing or binding. The force required to open and close loaded drawer shall not be more than a 20% increase of that required prior to test and shall not be greater than 8 pounds (3.628 Kg) to activate hardware.

Results:
The submitted sample meets the acceptance criteria of the test. Refer to the following page for a photograph.
Cabinet Drawer Cycle Test
7.2 WALL MOUNT LOAD TEST:

Date Tested: August 25, 2011
Condition of Test Sample: New

7.2.2. Test Procedure:

Test Method: Using sand or shot bags weighing 10lbs each, load cabinet bottom, each shelf, and top uniformly with 40lbs (18.14Kg) per square foot to a maximum of 200lbs (90.72Kg) each. Maximum load to any cabinet shall not exceed 600lbs (272.16Kg). A maximum of 200lbs shall be applied to the unit bottom regardless of the number of shelves.

Number of Samples Tested: One (1)

7.2.3. Acceptance Level:

With weights in place operate doors through full travel to verify normal operation of doors. Remove weights and operate doors to verify normal operation. Verify there is no significant permanent damage.

Results:

<table>
<thead>
<tr>
<th>Load Area</th>
<th>Static Load</th>
<th>Description of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabinet Top</td>
<td>170 lbs. (77.10 Kg)</td>
<td>Pass</td>
</tr>
<tr>
<td>Cabinet Bottom</td>
<td>152 lbs. (68.9 Kg)</td>
<td>Pass</td>
</tr>
<tr>
<td>Shelves</td>
<td>132 lbs. (59.86 Kg)</td>
<td>Pass</td>
</tr>
</tbody>
</table>

The sample meets the acceptance criteria. Refer to the following page for photograph.
8.2 TABLE STATIC LOAD TEST:

Date Tested: March 15, 2011
Condition of Test Sample: New

8.2.2 Test Procedure:

Test Method: Verify that the Table is level. Load the Table top by using 600 pounds (272.1 Kg) of solid steel bars (per Section #3.1) stacked evenly and spaced.

Dimensions of Product: 60"W x 24"D x 36"H

Number of Samples Tested: One (1)

8.2.3 Acceptance Level:

No structural breakage shall result from application of the load. With the full load, the apron rails shall not deflect more than 1/360 of the span of the table and not to exceed 1/8" (3.175 mm). Maximum deflection allowable is 0.166” (4.22mm).

Results:

<table>
<thead>
<tr>
<th>Static Load</th>
<th>Deflection</th>
<th>Description of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>600 lbs. (272.1 Kg)</td>
<td>0.061&quot; (1.55mm)</td>
<td>Complies</td>
</tr>
</tbody>
</table>

There was no structural damage to the unit. The sample meets the acceptance criteria. Refer to the following page for photograph.
Table Static Load Test
8.3 TABLE RACKING TEST:
Date Tested: March 15, 2011
Condition of Test Sample: New
Number of Samples Tested: One (1)

8.3.2 Test Procedure:
Test Method: The table shall be tested in its normal upright position, with floor glides fully retracted and blocked to prevent the table from sliding. Screw a block to the underside of the countertop to prevent it from sliding (the countertop must remain freely positioned). The table shall then be positioned at 45°, with one pair of legs on the floor and the other raised and supported. The unit shall remain in this position for thirty minutes. The unit shall be lowered without shock to the leveled surface and evaluated. This procedure shall be repeated on the opposite end.

8.3.3 Acceptance Level:
When returned to normal position, the operation of the table shall be normal, and there will be no sign of permanent damage.

Results:
The sample meets the acceptance criteria of the test. Refer to the following page for a photograph.
Table Racking Test
9.1 SHELF LOAD TEST
Date Tested: March 15, 2011
Condition of Test Sample: New
Number of Samples Tested: One (1)

9.1.2 Test Method: A shelf shall be mounted in the manner in which it is designed. Measure the distance from the underside of the shelf to a reference point perpendicular to the center of the shelf. Use shot or sand bags weighing 10lbs (4.54Kg) each. Unless otherwise specified, load the shelf uniformly to 40lbs (18.14Kg) per square foot not to exceed a maximum of 200lbs (90.72Kg). Measure the deflection on the shelf my measuring the distance to the reference point, and calculating the difference between the two measurements. Record data and remove load from the shelf.

9.1.3 Acceptance Criteria: The allowable maximum deflection of a shelf is $\frac{1}{180}$ of the span and not to exceed 0.25”.

Results: The sample meets the acceptance criteria. Maximum deflection measured was 0.233” Refer to the following page for photograph.
Shelf Load Test
10.1 CHEMICAL SPOT TEST

Date Tested: June 28, 2011
Condition of Test Sample: New

Description of Samples:
Part Description: 1354 Shell White SW Painted Steel Panels
Material Submitted: Two (2) Beige Painted Steel Panels
Material Specification: SEFA-8-M-2010

Test Procedure:
Test Method: SEFA-8-M-2010, Sec 10.1
The received sample to be tested for chemical resistance as described herein: Place panel on flat surface, clean with soap (Liqui-Nox at 5% concentration) and water and blot dry. Condition the panel for 48-hours at 73±3°F (23±2°C) and 50 ± 5% relative humidity. Test the panel for chemical resistance using forty-nine (49) different chemical reagents by the following methods.

Method A: Test volatile chemicals by placing a cotton ball saturated with reagent in the mouth of a 1-oz. (29.574cc) bottle and inverting the bottle on the surface of the panel. The cotton ball shall remain in contact with the sample for duration of the test.

Method B: Test non-volatile chemicals by placing five drops of the reagent on the surface of the panel and covering with a 24 mm watch glass, convex side down. For both of the above methods, leave the reagents on the panel for a period of one hour. Wash off the panel with water, clean with detergent (Liqui-Nox at 5% concentration) and naphtha, and rinse with deionized water. Dry with a towel and evaluate after 24 hours at 73±3°F (23±2°C) and 50 ± 5% relative humidity using the following rating system.

Rating Scale:
Level 0 No detectable change.
Level 1 Slight change in color or gloss.
Level 2 Slight surface etching or severe staining.
Level 3 Pitting, cratering, swelling, or erosion of coating. Obvious and significant deterioration.

Number of Samples Tested: Two (2) panels
Deviation:

Acceptance Criteria:
The Range of Results is provided to establish the acceptable range for Laboratory Grade Finish. Results will vary from manufacturer to manufacturer. Laboratory grade finishes should result in no more than four Level 3 conditions. Suitability for a given application is dependent upon the chemicals used in a given laboratory.

Results:

<table>
<thead>
<tr>
<th>Test No.</th>
<th>Chemical</th>
<th>Method</th>
<th>Required Range</th>
<th>Rating</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Acetate, Amyl</td>
<td>A</td>
<td>0-1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Acetate, Ethyl</td>
<td>A</td>
<td>0-2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Acetone</td>
<td>A</td>
<td>0-1</td>
<td>1</td>
<td>Slight Gloss Change</td>
</tr>
<tr>
<td>6</td>
<td>Alcohol, Butyl</td>
<td>A</td>
<td>0-1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Alcohol, Ethyl</td>
<td>A</td>
<td>0-1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Alcohol, Methyl</td>
<td>A</td>
<td>0-1</td>
<td>0</td>
<td></td>
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<tr>
<td>10</td>
<td>Benzene</td>
<td>A</td>
<td>0-2</td>
<td>0</td>
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<tr>
<td>11</td>
<td>Carbon Tetrachloride</td>
<td>A</td>
<td>0-1</td>
<td>0</td>
<td></td>
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<tr>
<td>12</td>
<td>Chloroform</td>
<td>A</td>
<td>0-2</td>
<td>1</td>
<td>Slight Gloss Change</td>
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<tr>
<td>14</td>
<td>Cresol</td>
<td>A</td>
<td>0-2</td>
<td>1</td>
<td>Slight Gloss Change</td>
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<tr>
<td>15</td>
<td>Dichloroacetic Acid</td>
<td>A</td>
<td>0-3</td>
<td>2</td>
<td>Slight Etching</td>
</tr>
<tr>
<td>16</td>
<td>Dimethylformanide</td>
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<td>0-2</td>
<td>0</td>
<td></td>
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<tr>
<td>17</td>
<td>Dioxane</td>
<td>A</td>
<td>0-2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Ethyl Ether</td>
<td>A</td>
<td>0-1</td>
<td>1</td>
<td>Slight Gloss Change</td>
</tr>
<tr>
<td>19</td>
<td>Formaldehyde, 37%</td>
<td>A</td>
<td>0-1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Furfural</td>
<td>A</td>
<td>0-3</td>
<td>2</td>
<td>Slight Staining</td>
</tr>
<tr>
<td>22</td>
<td>Gasoline</td>
<td>A</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Methyl Ethyl Ketone</td>
<td>A</td>
<td>0-2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Methylene Chloride</td>
<td>A</td>
<td>0-2</td>
<td>2</td>
<td>Severe Gloss Change</td>
</tr>
<tr>
<td>29</td>
<td>Mono Chlorobenzene</td>
<td>A</td>
<td>0-2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Naphthalene</td>
<td>A</td>
<td>0-1</td>
<td>0</td>
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</tr>
<tr>
<td>34</td>
<td>Phenol, 90%</td>
<td>A</td>
<td>0-2</td>
<td>1</td>
<td>Slight Gloss Change</td>
</tr>
<tr>
<td>46</td>
<td>Toluene</td>
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<td>0-1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Trichloroethylene</td>
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<td>0-1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Xylene</td>
<td>A</td>
<td>0-1</td>
<td>0</td>
<td></td>
</tr>
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</table>
## Non-volatile Chemicals

<table>
<thead>
<tr>
<th>Test No.</th>
<th>Chemical</th>
<th>Method</th>
<th>Required Range</th>
<th>Rating</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Acetic Acid, 98%</td>
<td>B</td>
<td>0-3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Acid Dichromate, 5%</td>
<td>B</td>
<td>0-1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Ammonium Hydroxide, 28%</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Chromic Acid, 60%</td>
<td>B</td>
<td>0-2</td>
<td>2</td>
<td>Slight Etching</td>
</tr>
<tr>
<td>20</td>
<td>Formic Acid, 90%</td>
<td>B</td>
<td>0-3</td>
<td>1</td>
<td>Slight Staining and Gloss Change</td>
</tr>
<tr>
<td>23</td>
<td>Hydrochloric Acid, 37%</td>
<td>B</td>
<td>0-2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Hydrofluoric Acid, 48%</td>
<td>B</td>
<td>0-3</td>
<td>1</td>
<td>Slight Staining and Gloss Change</td>
</tr>
<tr>
<td>25</td>
<td>Hydrogen Peroxide, 30%</td>
<td>B</td>
<td>0-1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Iodine, Tincture of</td>
<td>B</td>
<td>0-2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Nitric Acid, 20%</td>
<td>B</td>
<td>0-1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Nitric Acid, 30%</td>
<td>B</td>
<td>0-1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Nitric Acid, 70%</td>
<td>B</td>
<td>0-3</td>
<td>1</td>
<td>Slight Staining</td>
</tr>
<tr>
<td>35</td>
<td>Phosphoric Acid, 85%</td>
<td>B</td>
<td>0-1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Silver Nitrate, Saturated</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Sodium Hydroxide, 10%</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Sodium Hydroxide, 20%</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Sodium Hydroxide, 40%</td>
<td>B</td>
<td>0-1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Sodium Hydroxide, Flake</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Sodium Sulfide, Saturated</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Sulfuric Acid, 33%</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Sulfuric Acid 77%</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Sulfuric Acid, 96%</td>
<td>B</td>
<td>2-3</td>
<td>3</td>
<td>Complete Paint Removal</td>
</tr>
<tr>
<td>45</td>
<td>Sulfuric Acid, (77%) and Nitric Acid (70%), equal parts</td>
<td>B</td>
<td>1-3</td>
<td>2</td>
<td>Sever Staining</td>
</tr>
<tr>
<td>49</td>
<td>Zinc Chloride, Saturated</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
Suitability for a given application is dependent upon the chemicals used in a given laboratory.

### Totals

<table>
<thead>
<tr>
<th>Items</th>
<th>Requirement</th>
<th>No. Reagent with 3 Ratings</th>
<th>Disposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatile Subtotal:</td>
<td>-</td>
<td>0</td>
<td>---</td>
</tr>
<tr>
<td>Non-volatile</td>
<td>-</td>
<td>1</td>
<td>---</td>
</tr>
<tr>
<td>Subtotal:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Totals:</td>
<td>No More than Four Level 3 Conditions</td>
<td>1</td>
<td>Conforming*</td>
</tr>
</tbody>
</table>

* Suitability for a given application is dependent upon the chemicals used in a given laboratory.

**Disposition of Test Specimens/Samples:**
Test samples returned to COMPANY NAME when testing was completed.
10.2 HOT WATER TEST

Dates Tested: 
Condition of Test Sample: New

Description of Samples:
Part Description: 1354 Shell White SW Painted Steel Panels
Material Submitted: Two (2) Beige Painted Steel Panels
Material Specification: SEFA-8-M-2010

Test Procedure:
Test Method: SEFA-8-M-2010, Sec 10.2
Procedure: Hot water (100 ±3°C) shall be allowed to trickle (with a steady stream and at a rate of not less than 6 ounces [177.44cc] per minute) on the finished surface, which shall be set at an angle of 45-degrees, for a period of five minutes.

Number of Specimens Tested: One (1) panel, 6” x 6”

Acceptance Criteria:
After cooling and wiping dry, the finish shall show no visible effect from the hot water.

Results:

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Visible Effects From Hot Water</th>
<th>Conforming/Nonconforming</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None</td>
<td>Conforming</td>
</tr>
</tbody>
</table>

Disposition of Test Specimens/Samples:
Test samples returned to COMPANY NAME when testing was completed.
10.4 PAINT ADHESION TEST

Dates Tested:

Description of Samples:
Part Description: White Painted Steel Panels
Material Submitted: Two (2) White Painted Steel Panels
Material Specification: SEFA-8-M-2010
Condition of Test Sample: Production

Test Procedure:
Test Method: SEFA-8-M-2010, Sec 10.4: ASTM D3359-02, Method B, Cross-Cut Tape Test
Procedure: Two sets of six parallel lines 2 mm apart shall be cut with a razor blade to intersect at right angles thus forming a grid of 25 squares. The cuts shall be made just deep enough to go through the coating, but not into the substrate. They shall then be brushed lightly with a soft brush then place a piece of tape over the grid. Rub the tape firmly with the eraser of a pencil to ensure good contact. Remove the tape by rapidly pulling it back upon itself as close to an angle of 180° as possible.

Tape: 3M 898
Number of Specimens Tested: One (1) Panel

Acceptance Criteria:
A 4B rating or better (ninety five percent or more of the grid area shall show finish intact.)

Results:

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Tape Rating</th>
<th>% of Intact Squares</th>
<th>Conforming/ Nonconforming</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5B</td>
<td>100</td>
<td>Conforming</td>
</tr>
</tbody>
</table>

Disposition of Test Specimens/Samples:
Test samples returned to COMPANY NAME when testing was completed.
10.5 PAINT HARDNESS ON STEEL

Dates Tested: Date
Condition of Test Sample: Production

Description of Samples:
Part Description: 1354 Shell White SW Painted Steel Panels
Material Submitted: Two (2) Beige Painted Steel Panels
Material Specification: SEFA-8-M-2010

Test Procedure:
Test Method: SEFA-8-M-2010, Sec 10.5; ASTM D3363-05
Procedure: Clip a corner of the sample at 45° exposing a raw metal edge. Place the sample on a raw metal base plate so that the exposed metal edge of the sample makes contact with the turned up side of the base plate (see figure below).

Remove approximately 6 mm of wood from a 4H pencil, being careful to leave an undisturbed smooth cylinder of lead. Holding the pencil at an angle of 90° to an abrasive paper, rub the lead against the paper
marinating an exact angle of 90° until a flat smooth and circular cross section is obtained. On the other end the pencil remove approximately 13 mm of wood from one half of the pencil (see figure above).

Install the pencil into a Sheen model 720N Pencil Scratch Hardness Tester. Connect a continuity meter to the base plate and to the top of the pencil, being sure to make good contact with the exposed portion of the lead.

Following the manufactures instructions place the tester on the surface of the test sample and push it forward approximately 13 mm. Rotate the pencil 90° in the holder and repeat the test to one side of the first test. Repeat this two more times for a total of four tests, each with a different quadrant of the pencil lead.

Pencils used: Berol Turquoise
Number of Specimens Tested: One (1) Panel

Acceptance Criteria: The paint finish shall withstand the abrasion of a 4H pencil without penetrating through to the substrate and completing a continuous circuit.

Results:

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Pencil Hardness</th>
<th>Pencil Penetrating to Substrate</th>
<th>Completing a Continuous Circuit</th>
<th>Conforming/Nonconforming</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&gt;9H</td>
<td>&gt;9H</td>
<td>&gt;9H</td>
<td>Conforming</td>
</tr>
</tbody>
</table>

Disposition of Test Specimens/Samples:
Test samples returned to COMPANY NAME when testing was completed.