

SEFA 8 CERTIFICATE OF PERFORMANCE



WHAT IS SEFA?

The Scientific Equipment and Furniture Association (SEFA) is a voluntary international trade association representing members of the laboratory furniture, casework, fume hood and related equipment industry. The Association was founded to promote this rapidly expanding industry and to improve the quality, safety and timely completion of laboratory facilities in accordance with customer requirements.

SEFA members work together to establish, monitor and modify, as needed, industry-wide recommended practices in the areas of fume hoods, laboratory work surfaces, equipment and furniture installations.

SEFA RECOMMENDED PRACTICES

SEFA and its committees are active in the development and promotion of recommended practices having domestic and international applications. Recommended practices are developed by the association taking into account the work of other national standard-writing organizations. Liaison is also maintained with government agencies in the development of their specifications. SEFA's recommended practices are developed in and for the public interest. These practices are designed to promote better understanding between designers, architects, manufacturers, purchasers, and end users to assist the purchaser in selecting and specifying the proper product to meet the user's particular needs.

LABORATORY FURNITURE - SEFA 8

This recommended practice is intended to provide manufacturers, specifiers, and users tools for evaluating the safety, durability, and structural integrity of laboratory casework and complimentary items.



INDEPENDENT TEST LAB

Diversified Woodcrafts, Inc. contracted with Bjorksten Research Laboratory, 2 Fen Oak Court, Madison, WI 53718 to test our laboratory casework as it conforms to the SEFA 8 standards. The finish tests were performed by Chemcraft International, Inc., 1101 N. Bluemound Drive, Appleton, WI 54914. The summary results are shown below.

DESCRIPTION OF TEST CABINET

Diversified Woodcrafts, Inc. model number 108-4822, 48" wide x 22" deep combination base cabinet with one (full opening) drawer and two doors. Cabinet was leveled and the drawers, doors, hinges, latches, etc. were inspected and all were operating properly. The wall cabinet was Diversified Woodcrafts, Inc. model number D03-4812, 30" high x 48" wide x 12" deep with 2 doors and 2 movable shelves.

Test	Results	Test	Results
4.2	Pass	6.3	Pass
4.3	Pass	6.4	Pass
4.4	Pass	6.5	Pass
4.5	Pass	7.1	Pass
5.1	Pass	8.1	Pass
5.2	Pass	8.2	Pass
5.3	Pass	8.3	Pass
6.1	Pass	9.2	Pass
6.2	Pass		



FINISH TEST

8.1.1 Purpose of Test

The purpose of the chemical spot test is to evaluate the resistance the finish has to chemical spills.

8.1.2 Test Procedure

The received sample measuring 14" x 24" was tested for chemical resistance as described herein. The panel was placed on a flat surface, cleaned with soap and water, then blotted dry. The panel was conditioned for 48 hours at 73+ 3°F and 50+ 5% relative humidity. The panel was then tested for chemical resistance using forty-nine different chemical reagents by one of the following methods.

Method A - Volatile chemicals were tested by placing a cotton ball saturated with reagent in the mouth of a 1-oz. bottle and inverting the bottle on the surface of the panel.

Method B - Non-volatile chemicals were tested by placing five drops of the reagent on the surface of the panel and covering with a 24mm watch glass, convex side down.

For both methods, the reagents were left on the panel for a period of one hour, then washed off with water, cleaned with detergent and naphtha, and rinsed with deionized water. The panel was then dried with a towel and evaluated after 24-hours at 73± 3°F and 50± 5% relative humidity.

8.1.3 Acceptance Level

Chemical test exceeded the requirements of no more than four of 49 chemicals tested failed with a fail rate of three. Results shown on left.

HOT WATER TEST

8.2.1 Purpose of Test

The purpose of this test is to insure the coating is resistant to hot water.

8.2.2 Test Procedure

Hot water (190°F. to 205°F) was allowed to trickle with a steady stream and at a rate of not less than 6 ounces per minute on the finished surface, which was set at an angle of 45-degrees, for a period of five minutes.

8.3.3 Acceptance Level

After cooling and wiping dry, the finish showed no visible effect from the hot water.

IMPACT TEST

8.3.1 Purpose of Test

The purpose of this test is to evaluate the ductility of the coating.

8.3.2 Test Procedure

A one-pound ball approximately 2" in diameter was dropped from a distance of 12" onto the flat horizontal surface, which was coated to Diversified Woodcrafts, Inc. standard manufacturing method.

8.3.3 Acceptance Level

There is no visual evidence to the naked eye of cracks or checks in the finish due to impact.

Reagents Pass/Fail

Acetate Amyl**	Pass
Acetate Ethyl**	Pass
Acetic Acid 98%	Pass
Acetone**	Pass
Acid Dichromate 5%	Pass
Alcohol Butyl**	Pass
Alcohol Ethyl**	Pass
Alcohol Methyl**	Pass
Ammonium Hydroxide 28%	Pass
Benzene**	Pass
Carbon Tetrachloride**	Pass
Chloroform**	Pass
Chromic Acid 60%	Pass
Cresol**	Pass
Dichloro Acetic Acid**	Fail
Dimethylformamide**	Pass
Dioxane**	Pass
Ethyl Ether**	Pass
Formaldehyde 37%**	Pass
Formic Acid 90%	Pass
Furfural**	Pass
Gasoline**	Pass
Hydrochloric Acid 37%	Pass
Hydrofluoric Acid 48%	Pass
Hydrogen Peroxide 3%	Pass
Iodine	Pass
Methyl Ethyl Ketone**	Pass
Methylene Chloride**	Pass
Mono Chlorobenzene**	Pass
Naphthalene**	Pass
Nitric Acid 20%	Pass
Nitric Acid 30%	Pass
Nitric Acid 70%	Pass
Phenol 90%**	Fail
Phosphoric Acid 85%	Pass
Silver Nitrate	Pass
Sodium Hydroxide 10%	Pass
Sodium Hydroxide 20%	Pass
Sodium Hydroxide 40%	Pass
Sodium Hydroxide Flake	Pass
Sodium Sulfide, saturated	Pass
Sulfuric Acid 33%	Pass
Sulfuric Acid 77%	Pass
Sulfuric Acid 96%	Fail
Sulfuric Acid 77% & Nitric Acid 70%	Pass
Toluene**	Pass
Trichloroethylene**	Pass
Xylene**	Pass
Zinc Chloride Saturated	Pass

** Indicates Test Method A