

RESISTANCE OF WOODGRAIN FILMS TO HIGH INTENSITY ULTRAVIOLET EXPOSURE**Application**

This procedure is used to test the resistance of wood grain films to artificial weathering by simultaneous exposure to intense ultraviolet energy and water immersion.

Apparatus Required

A modified oven equipped with four Westinghouse FS20T-12 fluorescent sunlamps, five General Electric G25T-8 germicidal lamps, and a rotating platform is required. The oven shall be maintained at 32 +/- 3 °C for this test.

Oven

Grievess Hendry, Model PL-1, 1000 watts.
O.D. - 30 inches wide, 25 inches deep, 24 inches high.
I.D. - 28 1/2 inches wide, 24 inches deep, 20 1/2 inches high.
110 V, AC, 50 - 60 cycle, single phase motor.

The oven is to be equipped with thermostat control and red pilot light. An oven stand is optional.

Lamp Fixture

20 gage still box with screw cover.
Two two-lamp, 20 watt high power factor ballasts for sunlamps.
Five one-lamp, 25 watt high power factor ballasts for germicidal lamps.
Seven manual fluorescent starter switch assemblies.
Cover - 20 gage steel with Alzak aluminum reflector overlay.
Four pairs of fluorescent lamp holders.
Five pairs of germicidal lamp holders.
Five G25T-8 germicidal lamps (General Electric) or equivalent.

Rear of box shall be provided with four 1/4-20 mounting studs and screened ventilation sunlamps.

Four FS20T-12 fluorescent sunlamps (Westinghouse) or equivalent.

Lamps are to be mounted alternately. The above lamp fixture is to be installed in the oven ceiling.

Rotating Platform

One 12 inch diameter platform.
110 V, AC, 50 - 60 cycle, single phase motor - gear assembly capable of rotating platform at 3 - 5 rpm.
Adjustable stand to position motor and platform.

Pyrex Tray

6 x 10 inches (or equivalent non-metallic tray).

Date	Action	Revisions
2000 11 09	Revised	Editorial – no technical change A. Cockman
1992 07 20		

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Test Panels

Type 301 stainless steel, sheared from bright annealed strip, approximately .076 cm thickness. Panels to be approximately 5 x 5 cm.

Conditioning and Test Conditions

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 °C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

Procedure

Caution: Severe eye damage can result from direct or indirect viewing of the germicidal lamps with the unprotected eye.

1. Apply woodgrain film to a 2 x 2 inch stainless steel panel.
2. Lay panels in the Pyrex tray assuring no panels overlapping.
3. Add distilled water to a depth of approximately 1/8 inch above test samples.
4. Maintain water level throughout UV exposure period.
5. Adjust distance of rotating platform to 3 1/4 inches below lamps.
6. Expose samples to the number of cycles specified in the material specification. Each cycle consists of the following:
 - 8 h UV (germicidal and sunlamp) exposure at 32 +/- 3 °C.
 - Remove from cabinet, hold at 23 +/- 2 °C and ambient humidity for 16 h.
7. The platform is to be rotated continuously during the 8 h exposure period at 3 to 5 rpm.
8. At the conclusion of the specified number of cycles, including the 16 h recovery, place the samples in a 70 +/- 3 °C oven for 15 minutes.

Reporting

Examine and report any changes in appearance or other physical properties occurring as a result of this test as required by the material specification.

Chemicals, materials, parts, and equipment referenced in this document must be used and handled properly. Each party is responsible for determining proper use and handling in its facilities.