

- A. Test burner
- B. Heating device
- C. Thermometer
- D. Flash cup
- E. Supporting plate
- F. Asbestos board

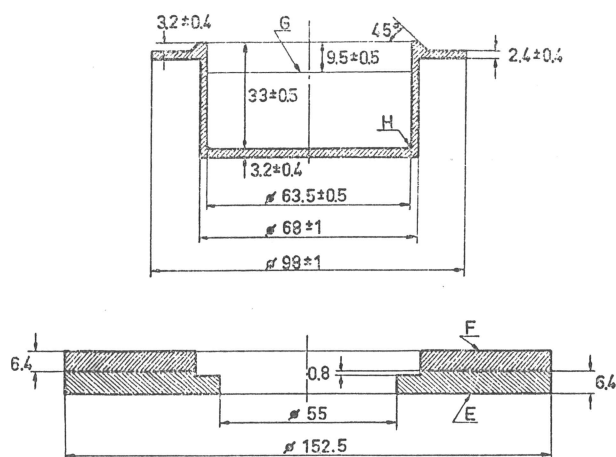


Figure 2. Flash cup and supporting plate.

- E. Metal
F. Asbestos board
G. Filling mark
H. Fillet, 4.0 mm in radius

Procedure

Carry out the tests in a room free from drafts and darkened so that the flash is easily seen. Avoid breathing over the surface of the sample. Pour the sample into the cup until the top of the meniscus is exactly at the filling mark. Suspend or secure the thermometer vertically with the bulb *ca.* 6 mm above the bottom of the cup and half way between the centre and the back of the cup. Heat the sample at a maximum rate of 17°C per minute until *ca.* 60°C below the flash point, and then regulate the heating so that the temperature increases by 6°C per minute. By means of the test burner apply a test flame *ca.* 3 mm in diameter. When the temperature reaches each successive 3°C mark, pass the flame in a straight

line or in a circle at least 150 mm in radius, across the centre of the cup and at right angles to the diameter through the thermometer; during this action the path of the flame shall lie in the plane of the rim of the cup. The test flame shall be passed across the cup in *ca.* 1 s. Record the flash point as the temperature indicated by the thermometer when a flash appears at any point on the surface of the sample. Disregard any bluish halo that may surround the test flame.

Continue the heating as before until application of the test flame causes burning for at least 5 s. Record the temperature indicated by the thermometer as the fire point.

Report

Carry out two determinations and report the mean to the nearest whole number as the flash or fire point of the tall oil (Note 1).

Additional information

This method is based on ASTM Designation D 92—57 and AOCS Official Method Ka 7—55, and should give equivalent results.

Note 1

The duplicate determinations shall not differ by more than the following margins:

	Repeatability, same operator and apparatus	Reproducibility, different laboratories
Flash point	8°C	16°C
Fire point	5°C	11°C

Literature

1. American Standard for Testing and Materials, 1966 Book of ASTM Standards, part 17, p. 31.
2. American Oil Chemists' Society, AOCS Official Method Ka 7—55.

This method has been published in:

- Norsk Skogindustri 21 (1967): 3, 105—108. (English and Norwegian).
Papperi ja Puu — Papper och Trä 49 (1967): 3, 122—125. (English and Finnish).
Papperi ja Puu — Papper och Trä 49 (1967): 4, 309—310. (Swedish).
Svensk Papperstidning 70 (1967): 6, 216—217. (Swedish).
Svensk Papperstidning 70 (1967): 7, 245—246. (English).

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