



Technical Bulletin 00-1

IFIA Americas Committee Inc.

Laboratory Subcommittee

Position Paper

ASTM D 93-99c, Flash Point by Pensky-Martens Closed Cup Tester

The member companies of the International Federation of Inspection Agencies, Americas Committee, operating in the USA, wish to make known their position with regard to certain aspects of the referenced test method.

ASTM D93 (PMcc Flash Point) has been extensively revised and is published now as D93-99c. The key point of the revision is that residual fuels are now included in the scope of Procedure B. Until this change, Industry custom and practice was to perform flash points for residual fuels by Procedure A. Procedure B was rarely used for petroleum products. The revised distinctions are as follows.

Procedure A is applicable to distillate fuels, (diesel, kerosene, heating oil, turbine fuels), new lubricating oils, and other homogeneous petroleum liquids not covered in the scope of procedure B.

Procedure B is applicable to all grades of residual fuel oils (marine & land), cutback residua, mixtures of petroleum liquids with solids, petroleum liquids that tend to form a surface film under test conditions or are petroleum liquids of such kinematic viscosity that they are not uniformly heated under the stirring conditions of Procedure A. These liquids are now heated at a slower rate and faster stirring speed than previously.

Conditions	Heating	Stirring
Procedure A	5° - 6°C per minute	90 -120 rpm.
Procedure B	1° - 1.5°C per minute	250 +/- 10 rpm.

The change resulted from an extensive correlation study coordinated by the Institute of Petroleum, which demonstrated that Procedure B yielded greater precision for residual fuels than Procedure A. Results obtained by the two procedures from the same sample may differ considerably.

Most specifications, including but not limited to ASTM D396-98, Standard Specification for Fuel Oils, Grades 5 and 6, were published prior to the changes in ASTM D93 and specify neither Procedure A nor Procedure B. Therefore, those specifications may not reflect results obtained from this significant change in flash point methodology. IFIA AC members will report either D93A or D93B as applicable.

IFIA AC members request that all interested parties review this notice and ASTM D93-99c and make appropriate arrangements, within instructions and contracts, to accommodate the revision.

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