

Fourth Pacific Area Meeting Papers

Symposium on

FIRE TEST METHODS (1962)



Published by the
AMERICAN SOCIETY FOR TESTING AND MATERIALS
1916 Race St., Philadelphia 3, Pa.

ASTM Special Technical Publication No. 344

SYMPOSIUM ON FIRE TEST METHODS (1962)

Presented at the
FOURTH PACIFIC AREA NATIONAL MEETING
AMERICAN SOCIETY FOR TESTING AND MATERIALS
Los Angeles, Calif., September 30–October 5, 1962



Reg U. S. Pat. Off.

ASTM Special Technical Publication No. 344

Price \$6.50; to Members \$4.50

Published by the
AMERICAN SOCIETY FOR TESTING AND MATERIALS
1916 Race St., Philadelphia 3, Pa.

© BY AMERICAN SOCIETY FOR TESTING AND MATERIALS 1963
Library of Congress Catalog Card Number: 63-21419

Printed in Baltimore, Md.
October, 1963

FOREWORD

The continued interest in, and research on, problems inherent in determining flammability and flame-spread characteristics has resulted in another Symposium on Fire Test Methods sponsored by ASTM Committee E-5 on Fire Tests of Materials and Construction. The earlier symposium, entitled Symposium on Fire Test Methods, STP 301, was published in 1961.

The papers in the Symposium were presented at two sessions on Monday, October 1, 1962, during the Fourth Pacific Area National Meeting of the Society. Mr. G. E. Troxell, University of California, served as Symposium Chairman and was Session Chairman during the morning session. Mr. G. W. Shorter, National Research Council of Canada, presided over the morning session, while Messrs. C. H. Yuill, Southwest Research Institute, and I. A. Benjamin, Granco Steel Products Co., were Presiding Officer and Session Chairman, respectively, of the afternoon session.

In addition to the papers presented at the Symposium two other papers have been included in this volume because of their pertinence to the subject: "The Hose-Stream Test as a Part of Fire-Testing Procedure" by S. H. Ingberg, and "Effect of Restraint on Fire Resistance of Prestressed Concrete" by S. L. Selvaggio and C. C. Carlson. This last paper was presented before the Session on Concrete during the Fourth Pacific Area National Meeting.

NOTE.—The Society is not responsible, as a body, for the statements
and opinions advanced in this publication.

CONTENTS

	PAGE
Introduction—G. E. Troxell.....	1
Flame-Spread Tests in a Large Tunnel Furnace—Calvin H. Yuill.....	3
Discussion.....	15
Surface Flammability as Determined by the FPL 8-ft Tunnel Method—C. C. Peters and H. W. Eickner.....	18
Discussion.....	31
Surface Flammability Measurements by the Radiant-Panel Method—A. F. Robert- son.....	33
Discussion.....	44
Fire Endurance Tests of Wall and Partition Assemblies—R. W. Bletzacker.....	47
Discussion.....	52
The Hose-Stream Test as a Part of Fire-Testing Procedure—S. H. Ingberg.....	57
Method for Fire Tests of Floor and Ceiling Assemblies—Jack Bono.....	69
Discussion.....	87
Effect of Restraint on Fire Resistance of Prestressed Concrete—S. L. Selvaggio and C. C. Carlson.....	91
The Building Official's Point of View on Fire Tests—T. H. Carter.....	116
The Fire Marshal's Point of View on Fire Tests—Ralph E. Carlson.....	121
Discussion.....	131

THIS PUBLICATION is one of many issued by the American Society for Testing and Materials in connection with its work of promoting knowledge of the properties of materials and developing standard specifications and tests for materials. Much of the data result from the voluntary contributions of many of the country's leading technical authorities from industry, scientific agencies, and government.

Over the years the Society has published many technical symposiums, reports, and special books. These may consist of a series of technical papers, reports by the ASTM technical committees, or compilations of data developed in special Society groups with many organizations cooperating. A list of ASTM publications and information on the work of the Society will be furnished on request.

