

SYMPOSIUM ON TIN

Presented at the
FIFTY-FIFTH ANNUAL MEETING
(FIFTIETH ANNIVERSARY MEETING)
AMERICAN SOCIETY FOR TESTING MATERIALS
New York, N. Y., June 23, 1952



ASTM Special Technical Publication No. 141
FIFTIETH ANNIVERSARY PUBLICATION

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

SYMPOSIUM ON TIN

Presented at the
FIFTY-FIFTH ANNUAL MEETING
(FIFTIETH ANNIVERSARY MEETING)
AMERICAN SOCIETY FOR TESTING MATERIALS
New York, N. Y., June 23, 1952



Reg. U. S. Pat. Off.

ASTM Special Technical Publication No. 141
FIFTIETH ANNIVERSARY PUBLICATION

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

COPYRIGHT, 1953
BY THE
AMERICAN SOCIETY FOR TESTING MATERIALS

Printed in Baltimore, Md.
September, 1953

FOREWORD

The papers and discussions in this Symposium on Tin were presented at the Second and Fourth Sessions of the Fifty-fifth Annual Meeting of the American Society for Testing Materials held in New York, N. Y., June 23, 1952. This Symposium was sponsored by Subcommittee II on Refined Lead, Tin, Antimony, and Bismuth of Committee B-2 on Non-Ferrous Metals and Alloys.

Mr. B. W. Gonser, Assistant Director, Battelle Memorial Institute, Columbus, Ohio, and Mr. Sidney Rolle, Assistant Manager, The Scomet Co., New York, N. Y. acted as Co-Chairmen for the Second Session, while Mr. W. C. Bowden, Jr., Chief Chemist, Ledoux and Co., Inc., New York, N. Y. and Mr. R. H. Taylor, Chief Chemist, The Vulcan Detinning Co., Sewaren, N. J., acted as Co-Chairmen for the Fourth Session.

CONTENTS

	PAGE
Introduction—Bruce W. Gonser.....	1
Tin Production and Resources—F. Stuart Miller.....	3
Discussion.....	21
The Production and Uses of Tin Coatings—Frederick A. Lowenheim.....	25
Discussion.....	37
Trends in the Use of Tin in the Container Industry—R. R. Hartwell.....	41
Discussion.....	50
Tin in Automobile Body Construction—Homer C. Pratt.....	52
Discussion.....	56
Effect of Impurities in Tin on the Properties and Uses of the Metal and Alloys Containing Tin—C. L. Mantell.....	57
The Determination of Small Amounts of Impurities in Tin—Marie Farnsworth and Joseph Pekola.....	84
The Analysis of Tin—A Panel Discussion.....	101

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

THIS PUBLICATION is one of many issued by the American Society for Testing Materials in connection with its work of promoting knowledge of the properties of materials and developing standard specifications and tests for materials. 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 A.S.T.M. technical committees, or compilations of data developed in special Society groups with many organizations co-operating. A list of A.S.T.M. publications and information on the work of the Society will be furnished on request.