

SYMPOSIUM ON TIN

INTRODUCTION

BY BRUCE W. GONSER¹

Tin is the only major common metal not covered by ASTM specifications. There are many reasons for this. Among them are that the major producers have been in other countries and, for the last decade (except for one year), tin has been under such strict allocation that domestic users have been glad to get tin of any reasonable composition. With the growth of tin smelter production in the USA, from the Texas tin smelter and recovery from secondary sources by Vulcan Detinning Co. and Metal and Thermit Corp., about half of the tin consumed comes from metal cast in this country. This has tended to promote cooperation between users and producers to set needed standards. Recently, the voices for specifications or a classification that will give a more orderly or precise designation than trade brands have become stronger. This has resulted in Subcommittee II, of ASTM Committee B-2 in Non-Ferrous Metals and Alloys, being asked to look into the feasibility and desirability of preparing specifications.

In the early stages of seeking information on tin, analytical methods, effects of impurities, etc., it was soon evident that an amazing amount of misinformation and lack of understanding existed. Some of this was because of disruption of normal market conditions by stockpiling and governmental purchasing, which fostered the widespread feeling of scarcity and need for substitutes in spite of continued world production in excess

of actual consumption. Considerable fear was expressed regarding cooperation of tin producers abroad, of the difficulty and undesirability of changing purchasing and selling habits, and on the expense and impracticability of analyzing tin shipments. There was a wide diversity of opinion on the effects of impurities in tin, and what composition limits would fit the great variety of applications.

This symposium on tin was organized to give some factual information. It was not intended to cover the entire subject thoroughly. However, by presenting and discussing some organized information on tin production and resources, on some of the major applications, on certain examples of changes in technology to conserve tin, the effects of certain impurities, and the technology of analyzing for impurities, it was believed that considerable clarification would result.

Judging from the widespread interest in this Symposium, there are many who are eager to learn and to contribute to this better understanding of tin problems. In preparing any standards or classification that may result eventually, the committees concerned will proceed with due regard for both producer and consumer problems.

The cooperation of the authors of the papers and those who aided in the panel discussion on tin analyses are most sincerely appreciated. Likewise, I wish to express appreciation to Sidney Rolle, Chairman of Subcommittee II, for his help in organizing this Symposium.

¹ Assistant Director, Battelle Memorial Institute, Columbus, Ohio, Co-chairman of Committee B-2.