

RELAXATION PROPERTIES
OF
STEELS AND SUPER-STRENGTH
ALLOYS AT ELEVATED TEMPERATURES

Data Compiled by and Issued Under the Auspices of

THE DATA AND PUBLICATIONS PANEL

of

THE ASTM—ASME JOINT COMMITTEE ON

EFFECT OF TEMPERATURE ON THE PROPERTIES OF METALS

Prepared for the Panel by

JAMES W. FREEMAN AND HOWARD R. VOORHEES

Published by the

AMERICAN SOCIETY FOR TESTING MATERIALS

1916 RACE STREET, PHILADELPHIA 3, PA.

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FOREWORD

This report is one in a current series prepared under the auspices of the Data and Publications Panel of the ASTM-ASME Joint Committee on Effect of Temperature on the Properties of Metals. Organizations known to have creep-testing facilities were canvassed for relaxation data by a Subcommittee for Survey of Relaxation Data. The data received have been combined with those previously reported under Project 16 of the Joint Committee. Information presented originated with the following organizations, identified on data sheets in the body of this report by the code letters adjacent to names in the list:

- A. American Steel and Wire Division, United States Steel Corp.
- B. Babcock and Wilcox Co. (M.I.T.)
- C. Battelle Memorial Institute
- D. Bethlehem Steel Co.
- E. Chapman Valve Manufacturing Co.
- F. Crane Co.
- G. Elliott Co.
- H. General Electric Co.
- J. International Nickel Co.
- K. Materials Laboratory, Wright Air Development Center (University of Michigan)
- L. Naval Research Laboratory
- M. United Steel Companies, Ltd.
- N. U. S. Naval Engineering Experiment Station
- O. Timken Steel and Tube Co. (University of Michigan)
- P. Westinghouse Electric Corp.

Acknowledgment:

Special thanks are due to the organizations contributing data and to their representatives for taking the time to prepare the data. In particular, credit is due Mr. Ernest L. Robinson for his collection and correlations of relaxation data in prior publications under the auspices of the Joint Committee. A significant amount of the data presented was taken directly from his prior reports.

Membership of the Subcommittee for Survey of Relaxation Data which organized the data collection was as follows:

Sidney Low, <i>Chairman</i>	William C. Stewart
Evan A. Davis	E. A. Sticha

The report was prepared under their direction and the authors wish to express appreciation for their advice and counsel. The membership of the parent Data and Publications Panel is as follows:

G. V. Smith, <i>Chairman</i>	A. J. Herzig
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