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# **THE ELEVATED-TEMPERATURE PROPERTIES OF WELD-DEPOSITED METAL AND WELDMENTS**

*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*  
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## FOREWORD

This report is one of a current series of ASTM Special Technical Publications summarizing properties of alloys at high temperatures. These are 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. A Subcommittee for Survey of Strength of Weldments canvassed organizations known to have creep-rupture testing facilities for tensile, rupture and creep data from weld-deposited metal and cross-weld specimens to be compiled as this report. Data presented originated with the following organizations:

Allegheny Ludlum Steel Corp.  
Arcos Corp.  
American Society for Testing Materials  
"Elevated-Temperature Properties of Stainless Steels", (1952) *ASTM STP No. 124*.  
"Compilation of Available High Temperature Creep Characteristics of Metals and Alloys", pp. 98-101 (1938), *ASTM STP No. 37*.  
Babcock and Wilcox Co.  
Babcock and Wilcox, Ltd.  
Battelle Memorial Institute  
Canada, Department of Mines and Technical Survey, Mines Branch  
Cornell Aeronautical Laboratory  
Crane Co.  
Curtiss-Wright Corp., Wright Aeronautical Division  
The Detroit Edison Co.  
Edward Valves Research Laboratory  
Elliott Co.  
General Electric Co.  
High Alloys Committee of the Welding Research Council  
The International Nickel Company, Inc.  
Metal Progress, Vol. 70, No. 5, Nov., 1956, pp. 65-73.  
Newport News Shipbuilding and Dry Dock Co.  
North American Aviation, Inc.

Petroleum and Chemical Panel of ASTM-ASME Joint Committee on Effect of Temperature on Properties of Metals  
Public Service Gas and Electric Co. (University of Michigan)  
Timken Roller Bearing Co. (University of Michigan)  
U. S. Naval Engineering Experimental Station  
U. S. Navy Department, Bureau of Ships (Babcock and Wilcox Co.)  
Union Carbide and Carbon Corp., Metals Research Laboratory  
Welding Research Council, *Bulletin* Jan. 1957, pp. 3-44 (J. G. Wilson).  
Westinghouse Electric Corp.

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