

Introduction

A symposium on Temperature Effects on Concrete, sponsored by ASTM Committee C-9 on Concrete and Concrete Aggregates, was held in June 1983 at Kansas City, Missouri. This volume contains ten papers, eight of which were presented at that symposium. The authors come from a variety of geographical areas, including the United States, Canada, and England.

The international aspect of this volume is reflected in the papers. The temperature effects on concrete described herein take place under conditions that vary from Arctic environments to high-temperature exposures of 600°C. While some of the authors have also presented findings of investigations for more general use—namely, the usual cold and hot weather conditions—one paper has even presented test results of concrete subjected to cryogenic temperatures.

The editor hopes and anticipates that this book will be of benefit to many engineers and researchers interested in temperature effects on concrete. Also, the references at the ends of the individual papers will be of benefit to readers seeking additional information for detailed study of the subject of temperature effects on concrete.

The editor would like to take this opportunity to express his appreciation to the reviewers of these papers for their timely reviews. He is also sincerely grateful to Dr. Vance Dodson and Herman Protz, members of ASTM Committee C-9 and Subcommittee C09.02 on Research, for their help in organizing the symposium. The continuous and prompt help provided by the publications department of ASTM is also very much appreciated.

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