The chapter on cellular concrete was first presented in ASTM STP 169B in 1978 and was authored by my father, Professor Leo M. Legatski (Civil Engineering) of the University of Michigan, Ann Arbor. Professor Legatski's special interest in cellular concrete began in the late 1940s continuing until his death in 1986. He was active in this field with contributions to both the American Society for Testing and Materials and the American Concrete Institute. Although I have tried to follow the general presentation of the previous chapter, I have updated the sections and stressed new applications of the material.

Abstract

Cellular Lightweight Concrete (CLC) also known as Foamed concrete is one of the most significant type of concrete used for construction purposes due to its various advantages and usages over traditionally produced concrete. Foamed concrete is manufactured by mixing Portland cement, sand, fly ash, water and preformed foam in varied proportions. Cellular lightweight concrete can be produced at building sites using machines and molds devised for normal concrete at ambivalent conditions.