A REVIEW ON ENHANCING FOAM CONCRETE WITH ADDITIVES: A COMPREHENSIVE STUDY OF STRENGTH, DURABILITY, AND FIRE RESISTANCE

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A REVIEW ON ENHANCING FOAM CONCRETE WITH ADDITIVES: A COMPREHENSIVE STUDY OF STRENGTH, DURABILITY, AND FIRE RESISTANCE

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ABSTRACT

A REVIEW ON ENHANCING FOAM CONCRETE WITH ADDITIVES: A COMPREHENSIVE STUDY OF STRENGTH, DURABILITY, AND FIRE RESISTANCE

An industry with many facets and constant change, construction is essential to the growth of buildings, infrastructure, and different civil engineering projects. Nonetheless, the building sector is always looking for new ways to improve the performance of building materials. In this endeavor, additives are essential since they provide a way to improve the characteristics of building materials. Foam concrete is a versatile and lightweight building material that has become a major role in contemporary construction methods. Its increasing popularity in a variety of construction projects can be attributed to its strength, durability, and fire resistance. The impacts of additives are of great interest as a result of the effort to improve the qualities of foam concrete. The present review highlights the critical function of additives in strengthening foam concrete, to enhancing its strength, durability, and fire resistance, and making it exceptionally well-suited for a wide range of construction-related uses.