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The impact of manufactured sand (m-sand) as partially and fully replacement of fine aggregate in concrete (Article) (Open Access)

Nadimalla, A.[a], Masjuki, S.A.[a], Saad, S.A.[a], Woen, E.L.[b], Ali, S.M.[a], Ulla, N.[c]

[a]Civil Engineering Department, International Islamic University Malaysia, 53100, Malaysia
[b]Institute of Sustainable Energy, Universiti Tenaga Nasional, 43000, Malaysia
[c]Civil Engineering Department, Bearys Institute of Technology, 574153, India

Abstract

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This, research work was to study the potential of M-sand as compared to river sand in concrete, here M-sand is replaced by river sand 0%,45%,50%,55% and 100% in the concrete mix, Mix design is designed as per IS Standards. In this research a mix 1:2.32:2.82 (M20) was considered. The test specimen was casted for 7days, 28 days and 90days. The performance of M-sand was determined by several experiments such as slump test, impact strength test, flexural Strength, and compressive strength test. The results attained from each test states that as M-sand increases the slump value decreases. flexural strength, compressive strength and impact test of concrete at 7 days, 28 days and 90 days is greater at 100% and 50% replacement of M sand by river sand.

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Nadimalla, A.; Civil Engineering Department, International Islamic University Malaysia, Malaysia;
email:altamashk1987@gmail.com

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