IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 2, Issue 1, June 2022
Impact Factor: 6.252

Test on Strength Properties of Concrete Reinforced with Hybrid Fibres

Pravin Kumar D[1] and Premalatha J[2]
PG Student, Department of Civil Engineering[1]
Professor, Department of Civil Engineering[2]
Kumaraguru College of Technology, Coimbatore, Tamil Nādu, India
pravinkumar.20mse@kct.ac.in[1] and premalatha.j.ce@kct.ac.in[2]

Abstract: *This study presents the experimental study on effect of glass fibers, steel fibers and hybrid fibers (combination of steel and glass) in the mechanical properties of concrete in comparison with the conventional concrete. The steel fibers, glass fibers and their combination are added to the normal conventional concrete to impart good strength properties such as compressive strength, flexural strength and split tensile strength to the concrete. It also enhances the chemical resistance, permeability, impact strength and other properties of concrete. The aim of the work is to study the properties of steel fibers, glass fibers and hybrid fibers for the properties of concrete for different proportions from the test that are conducted for 7 days and 28 days of curing of the concrete.*

Keywords: Compressive strength, Flexural strength and split tensile strength

REFERENCES

[1]. Samadhan Garad, Prof. Navanath Phadtare, "Experimental analysis of glass fiber reinforced concrete", international journal of advanced engineering technology, E-ISSN 0976-3945.
[2]. Eng. Pshtiwan N. Shakor, et al., "Glass fibre reinforced concrete use in construction", international journal of technology and engineering system(IJTES), Vol.2 no.2, 2011.
[3]. A. P. Singh, et al., "Permeability of steel fibre reinforced concrete with the influence of fibre parameters", Elsevire Ltd., 2011.
[4]. M. P. Singh, et al., "Experimental study on strength characteristics and water permeability of hybrid steel fibre reinforced concrete", international scholarly research, volume 2014.
[5]. S. Thendral, et al., "The rapid chloride penetration test on hybrid fibre reinforced concrete in comparison to normal concrete", international journal of pure and applied mathematics, volume 119, 2018.
[6]. Ankur C Bhogayata, et al., "Impact strength, Permeability and chemical resistance of concrete reinforced with metalized plastic waste fibres", construction and building material, 2018.
[7]. Kesava Raju Vegesana, et al., "Compressive behaviour of Steel Fibre Reinforced concrete exposed to Chemical attack", American journal of construction and building materials, 2020.
[8]. V.Marcos-Meson, et al., "Durability of steel fibre reinforced concrete exposed to acid attack", construction and building materials, 2019.
[9]. A.P. Singh, "Strength and Permeability characteristics of steel fibre reinforced concrete", international journal of civil and environmental engineering, 2013
[10]. Jinliang Liu, et al., "Calculation of chloride ion diffusion in glass and polypropylene fibre-reinforced concrete", construction and building materials, 2019.