

# The Effect on Strength Properties of Concrete using Fluorescent Lamp Powder, Quarry Dust and Iron Slag

Mr. Rajat S. Moon<sup>1</sup>, Dr. P. P. Saklecha<sup>2</sup>, Dr. S. G. Makarande<sup>3</sup> and Mr. V. A. Kalmegh<sup>4</sup>

PG Student/Research Scholar, Department of Civil Engineering<sup>1</sup>

Professor, Department of Civil Engineering<sup>2,3</sup>

Assistant Professor, Department of Civil Engineering<sup>4</sup>

Bapurao Deshmukh College of Engineering, Sevagram, Maharashtra, India

**Abstract:** To overcome the problem of the Reduction in natural Aggregate and cement require introducing new composition. To replace the Natural aggregate and Cement used in concrete many replacements has been made. In this Research, concrete made of Iron slag and Quarry dust Replacing Fine aggregate to 20% of each are used to study the strength parameters of M25 grade concrete and Cement can be partially replace by Fluorescent Lamp powder in Various proportion of 0%, 2%, and 4% to check the durability and workability of concrete by using This new composition. The Aim of the study to investigate the early age strength of concrete by partial replacement of cement with FLP and sand with Quarry dust and Iron slag.

**Keywords:** FLP (Fluorescent Lamp Powder), Quarry Dust, Iron Slag, Strength Parameters

## REFERENCES

- [1]. Raghavendra K and Virendra Kumara. K. N, "Reusing of Glass Powder and industrial Waste Material in Concrete", International Journal of Research in Engineering and Technology, Vol. 4, Issue 7, July 2015, pp. 177-179, e- ISSN: 2319-1163
- [2]. Byars EA, Morales-Hernandez B, Zhu HY, Waste glasses as concrete aggregate and pozzolan, Concrete, 38(1), 2004, pp.41-44.
- [3]. Shetty, M.S, (2002), "concrete Technology", Theory and Practice, Chand &Company Ltd. New Delh
- [4]. IS 456-2000 "Code of practice plain and Reinforced Concrete", (4thRevision)
- [5]. IS 10262-1982 "Recommended guidelines for concrete Mix Design"
- [6]. IS 516-1959 "Methods of test for Strength of Concrete"
- [7]. Shao Y., Lefort T., Moras S., Rodriguez D. Studies on concrete containingground waste glass. Cement and Concrete Research: 30,2000, pp. 91-100.
- [8]. EKO 2007, EKO-UNIA, Szklojakosurowieciwrtorny, Report prepared byEcological Association, 2007.
- [9]. Siddique R. Waste materials and by-products in concrete. Springer, 2008,pp. 413.
- [10]. Sakhmenko G., Korjakins A., Bumanis G. Bore-Silicate Glass Waste ofLamp as a Micro-Filler for Concrete // Scientific