Review of: "Shear performance of polypropylene fiber reinforced high-strength self-compacting concrete beams"

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Potential competing interests: No potential competing interests to declare.

Introduction

Several ideas in the introduction lack references that support the ideas that are expressed. For example, the following paragraph has no references: “Concrete is a material for building construction that is made from Portland cement, water, and fine and coarse aggregates. In addition to good compressive strength, the concrete material has a very weak tensile strength. To increase tensile strength, fibrous materials are generally added to concrete,” and “It was shown that polypropylene can improve the tensile strength of concrete. Extensive research on self-compacting concrete was carried out several decades ago.”

I suggest including this sentence: “Numerous experimental and analytical studies on structural members have been reported,” when addressing the state of the art, in addition to briefly describing the references that support it. Reminder: The introduction begins by explaining or addressing the generalities of the topic, not the state of the art.

Experimental

In the materials section, please reference the following sentence: “To reduce friction between the constituents of the mixture and increase fluidity, limestone powder was used to act as a filler,” or present a study that confirms the described behavior.

What does EFNARC mean? If it is a standard, please reference it.

The results should not be included in the experiment section; please create a section for results.

Figure 1 is not referred to in the text; please include it because it creates confusion for the editor.

Standardize the use of the diameter symbol; sometimes it is used, and sometimes it is not. Please choose whether to always use it or not.

In the following paragraph, “Cube and cylindrical specimens were tested on the same day as the beam testing to determine the average compressive and tensile strength of the concrete, respectively,” it would be helpful to specify the day on which the test was carried out (14 days, 28 days, etc.).

Figures 4 and 5 correspond to results; it is suggested to present them in a results section. The fact of including them in an

experiment only creates confusion for the reader, and the research work may lose impact.

The following sentence corresponds to a definition: “Toughness is the ability of a material to absorb energy and deform plastically without fracturing.” This is a generality; it should be included in the introduction, not in an experiment. Please do not mix the content of the sections; the reader may lose interest when consulting the work.

Table 3 is not referred to in the text; since the “3” is presented as a reference, it creates confusion. Please correct it to read, “The maximum and relative deflection of the midpoint of the beam specimens is presented in ///table [3]///.”

Figures 6-10 are not part of the experiment. Please create a results section and include them in the discussions and conclusions section.

This section lacks discussions, mixes discussions and conclusions, which confuses the reader. It is recommended to create a “Results and Discussions” section and draw conclusions from that section. Since the discussions are not differentiated from the conclusions, the work does not present certainty in its results, since it lacks numerous references that support the discussions of the results. Furthermore, it is recommended to highlight the scientific contribution of the work in the conclusions.

References.

Please standardize the style of the references. In the development of the text, the author uses a style similar to the IEEE, and the references lack a homogeneous style; for example, most of them lack the year of publication. To create a work with significant scientific impact/contribution, it is recommended that at least 50% of the references correspond to the period 2019-2023. Furthermore, the number of references is kindly suggested to give greater support to the work, mainly in the Results and Discussions section.

Writing and grammar:

In general, the writing of the article can be improved by modifying the structure of the ideas following the classic style: subject + verb + predicate.

The quality of this article corresponds to some peer-reviewed university journal, but not to an indexed international journal.