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.

I would like to thank the author for presenting this study and for his efforts. I believe that the following suggestions will improve the article:

Literature research should be enhanced; especially, the studies carried out in the last 5 years should be emphasized, and then the contribution and innovation that the study will bring to the literature should be emphasized thoroughly.

The type of Portland cement used and its physical and chemical properties should be given. Additionally, unit weights of all materials used should be given. It would be useful to provide information about the chemical properties and fineness of the silica fume, and the effect of this material on the water demand and workability of concrete should be emphasized.

While preparing the mixture, information about the mixing time should be given.

The diameter or L/D (length/diameter) ratio (aspect ratio) of the fibers used should be specified.

The properties of all materials used should be specified in detail so that the study can be repeated and the effect of the materials on the results can be evaluated.

In the concrete mix design, the amount of silica fume is stated incorrectly in the group where the cement content is 570 kg/m3, and this needs to be corrected.

If the cement content is considered as a variable and the results are interpreted depending on this parameter, it is beneficial to work with at least three different cement contents (or similarly, in cases where the nominal cube compressive strength is variable, it would be appropriate to consider this value as at least three different values).

In addition to the mean values, standard deviations should also be given in the data obtained, or error bars should be shown in the graphs instead. Which one should be done should be decided by taking into account the readability of the graphics. Testing only two samples per batch may give misleading results.

The loading rate should be specified in the experiments.

Information should be given about the curing conditions.

It should be stated on which standard the test was performed, and the references to the relevant test procedures/standards should be added.

The explanations of all abbreviations and notations used should be given.

The “results and discussion” section and the “conclusion and recommendations” section should be separated, and all results and graphs obtained in the discussion section should be interpreted comprehensively with the support of literature/current studies.

The size effect should also be emphasized when evaluating concrete compressive strength.

It is recommended to comment on how much the polypropylene fiber inclusion increases the cost of concrete. By performing a cost analysis, information about the cost of 1 m3 of concrete can be provided, and the place and importance of this material in engineering applications can be emphasized.

In some references, year information is not provided; it is recommended to add them or indicate the publication’s DOI number.