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.

Shear performance of polypropylene fiber reinforced highstrength self-compacting concrete beams

In this study, self-compacting polypropylene fiber reinforced concretes were produced, and their shear strengths were investigated. There are some deficiencies in the study both structurally and scientifically.

Comments:

- **The title** is appropriate.
- **The abstract** should briefly include what was done and what was obtained in the study as a whole. The statement that the study is a whole and consists of two parts is not appropriate, in my opinion. Production and analyses are the whole process. They should be evaluated and explained together.
- **The introduction;** the literature is not sufficiently discussed. It contains mostly superficial and encyclopaedic information.

“Several researches have been conducted dealing with the impact of steel fibers on the shear strength of reinforced concrete beams was developed more than sixty years ago, is concrete. Prediction equations for the shear strength of steel fiber reinforced concrete beams were proposed in some studies..It was shown that steel fibers improve the mechanical properties of concrete, especially in the modulus of rupture and the splitting tensile strength”.

The literature you have given about these studies, which you have stated have been carried out for many years, is insufficient. For example, in this sentence, "It was shown that steel fibres improve the mechanical properties of concrete, especially in the modulus of rupture and the splitting tensile strength," you have given only one reference, and you have not given any explanation of why this change is caused.

- **The Experimental part;**

In the experimental studies section, how polymer fibre reinforced concretes are produced and the analyses performed on these samples should be explained. The necessary norms should be specified while explaining the production techniques and analysis methods. It should be clearly stated under which parameters these production and analyses are carried out, using which machines or devices. Results should not be interpreted in this section.

The results should be explained in another section with graphs.

The production methods of concrete samples and the norms (standards) according to which they are produced and analysed should be specified.

- How did you determine the dimensions of all the beams.
- Why is there no comment on figure 1?
- Figures should be interpreted more descriptively.
- What does the horizontal axis in the graphs mean? In Figures 6, 7, 8?
- Why don't you erase the zeros after the dot in the graphs?

(0 instead of 0.000 / 0.2 instead of 0.200 / 0.6 instead of 0.6000 / 1.14 instead of 1.1400)

- **Results and Discussion / Conclusion**

In the Discussion and Conclusion section, the same results obtained with graphs in the previous section are repeated. In this section, it should be discussed what the results obtained by this study mean, what kind of innovation or change they bring about, and what kind of benefit / loss they can create in relation to this sector.

This study does not go beyond laboratory work. The abstract and introduction sections of the study contain deficiencies. There are deficiencies regarding the production techniques and analyses of the materials produced. The results are not interpreted clearly. The graphics contain structural errors. The lack of norms for production and analyses and the lack of information and figures on the machines used are deficiencies. What the results bring in terms of innovation is not discussed with the existing literature.

Due to these issues, the publication of the article is not sufficient, in my opinion.