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

Taghreed Kh Mohammed Ali[1]

1 Koya University (Kurdistan Region)

Potential competing interests: No potential competing interests to declare.

The manuscript studied the effect of using polypropylene fibers on the flexural and shear behavior of high-strength self-compacting concrete by testing eight beams with 2 types of concrete strength (80 and 90) MPa and dimensions 120 mm wide, 200 mm deep, and 1600 mm long. The beams were simply supported over a span of 1400 mm. Three different percentages of polypropylene fibers (0.0, 0.1, 0.2, and 0.3 percent) were used. Here are the following comments:

1. It is required to improve the introduction by mentioning other literature such as this paper titled (Shear strength of a reinforced concrete beam by PET fiber), Environment, Development and Sustainability, https://doi.org/10.1007/s10668-020-00974-w
2. Rewrite this sentence in the introduction (Therefore, another fiber material was developed and used in concrete such as steel fibers, glass fibers, carbon fibers, and polypropylene fibers). Where you mention the steel fibers in the previous sentence.
3. Why did you use two units for compressive strength in figures and text? Use only the unit of MPa for compressive strength in figures and text.
4. The diameters of stirrups and tension bars in figure 2 are not the same as mentioned in the text.
5. Use the (mm) unit for stirrups spacing in figure 2
6. The dimensions of the beams in figures 2 and 3 are not the same; which one is correct?
7. Why did you not mention the 0.1% and 0.2% for the curves in figure 4 (b) (right side)?
8. It is preferred to mention the title of figure 5 (a) as the control beam.
9. Write the word (Table) in the manuscript by using the capital letter T.
10. It is required to mention the ratios of polypropylene fibers for beams in figures 9 and 10.
11. Unify the format of writing for the references