

Review of: "The Effects of Polypropylene Wastes on the Compressive Strength of Grade 25 Concrete"

Mustafa H. Omar

Potential competing interests: No potential competing interests to declare.

Manuscript Title: The Effects of Polypropylene Wastes on the Compressive Strength of Grade 25 Concrete

In this paper, the author investigated the impact of polypropylene waste on the compressive strength of grade 25 concrete, aiming to address environmental pollution concerns. Polypropylene was used as a partial replacement for sand in concrete mixes at varying percentages, with results showing a slight decrease in compressive strength at higher replacement levels. I recommend this paper for publication after the revision process, where the following comments should be considered.

Comments to authors:

1. Mention the details of the tests in detail with the standard.
2. The results, as shown in Table 2, state that the water intake of the PP concrete reduced for 5% and 10% while there was an increase in water intake at 15% and 20%, respectively. Why did this behavior occur?
3. What is the relationship between the decrease and increase in compressive strength with water absorption?
4. It is known that replacing aggregate with alternative recycling plastic waste leads to a decrease in compressive strength. How did you achieve the highest strength by replacing 15%?
5. How did the water absorption values of the polypropylene concrete vary at different replacement percentages?