Response to Reviewer 3 Comments

Point 1:
Introduction is very poor, please address the background of your research since it is not clear. I do not see any benefit of your research without all details of mixing, casting, testing fresh properties and explaining why would you use infiltration at all? What do you want to show compared to the literature? You didn’t compare data from literature with results from your study.

Response 1:
Thank you for your comments.
SIFRCC has been developed for the purpose of resisting extreme loads such as impact and explosive loads etc..
This paper does not include introduction to dynamic loads because it is about static compressive strength. This is because, if the contents of the dynamic loads are included, the results of the dynamic test as well as the static test are also required.

Point 2:
You cited only 9 references for literature, I am sure there much more studies that only reported.

Response 2:
Thank you for your comments.
There will be more references. However, there are 9 references to this paper. I will look for additional references and refer them.

Point 3:
Why would you use such a long fibers, 60 mm? Where is this used in practice? Why we would infiltrated a slurry?

Response 3:
Thank you for your comments.
As in response 1, 60mm of long-steel fiber is used to resist impact and explosive loads, so that it can resist energy absorption and large deformation.
Only when the volume fraction of steel fibers is high can they resist impact or explosive loads. In order to increase the volume fraction of steel fiber, it is very difficult to increase the fiber volume fractions such as conventional fiber-reinforced concrete. Thus, materials in the form of placing steel fibers in advance and filling slurry were developed as a way to increase the fiber volume fraction. This is also mentioned in the text.

Point 4:
Line 72-74 Please add references for such a statement.
Response 4:
Thank you for your comments.
It has been citation.

Point 5:
Line 75-76 Please add the reference.

Response 5:
Thank you for your comments.
Reference has been added.

Point 6:
Line 85-86 Please add the reference. Who wrote the Composite Theory?

Response 6:
Thank you for your comments.
References have been added.

Point 7:
Table 1 What do you mean by Stability of cement in Table 1? What type of stability? How is that measured? Add the unit for specific gravity.

Response 7:
Thank you for your comments.
Cement stability is a property where cement is hydrated in a stable manner without causing any abnormalities such as volume change. The stability test of cement measures the length change by placing a test specimen made of standard-led cement paste in an autoclave for three hours and then cooling it to 23 °C for 15 minutes. Specific gravity has no unit.

Point 8:
Line 105 Specify the admixture, which company and concentration?

Response 8:
Thank you for your comments.
The admixture is produced by DongNam Company, South Korea and the concentration is pH 5.0 ± 2.0.

Point 9:
Add particle size distributions for cement, silica fume and aggregates.

Response 9:
Thank you for your comments.
Particle size is expressed in Blaine and aggregates particle size was mentioned.

**Point 10:**
What is maximum aggregate size usually used for fiber-reinforced composites?

**Response 10:**
Thank you for your comments.
Coarse aggregate in fiber-reinforced concrete was used and its size varies depending on the purpose.

**Point 11:**
What is the binder weight?

**Response 11:**
Thank you for your comments.
The binder weight means total weight of cement and silica fume.

**Point 12:**
Figure 3 Why did you plot compressive strength individually, please report average values and corresponding standard deviations.

**Response 12:**
Thank you for your comments.
We can find average value of compressive strength in table 5.

**Point 13:**
Specify size of cylinders.

**Response 13:**
Thank you for your comments.
Size of cylinders has been updated.

**Point 14:**
The data presentation is not appropriate for Figures 3, 4, 5, 6.

**Response 14:**
Thank you for your comments.
It has been updated according with data.

**Point 15:**
The deviations of the results in Table 5 within one mix are too large.

**Response 15:**
Thank you for your comments.
Due to the high fiber volume fraction, the deviation occurred large. Further experiments on this topic are ongoing.

**Point 16:**
How do you think this will be used in the applications?

**Response 16:**
Thank you for your comments.
It can be used for structures requiring special purpose that can be subjected to impact and explosive loads. It is also use for the safety of structures caused by terrorist attacks as the number of terrorist attacks has increased recently.

**Point 17:**
What were the fresh properties of your mixtures? What was the workability?

**Response 17:**
Thank you for your comments.
Because it has to be filling between steel fibers, the filling performance of the slurry is important due to its high flowability.

**Point 18:**
Please, add photos from mixing and casting procedures? How did you place fibers vertically?

**Response 18:**
Thank you for your comments.
Photos has been added.
Not vertically, not directionally. As shown in Figure 13, the steel fibers appear vertically destroyed because the steel fibers in the loading direction and the vertical direction resist, the photographs show that the fibers have been injected vertically.

**Point 19:**
The amount of fibers in m3 is too high, almost as water volume.

**Response 19:**
Thank you for your comments.
Although the actual amount of steel fiber is volume fractions of 4, 5, and 6 %, the density of steel fiber is 7.8g/m³, which is a lot of used for 1m³.