

manual

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Background

1. Fire may bring about disastrous results on life and properties. Therefore it is very important to prevent fire accidents in advance.
2. However, it is difficult to prevent fire accidents due to its diverse cause.
3. One of effective solutions to reduce the damage is improving fire-resistant characteristic of surroundings.
4. Accordingly, there are many products required to meet certain international or industrial standards in term of fire-resistant characteristic.
5. For those products, fire-resistant characteristic is very important property and sometimes spend lots of cost and time to develop fire-resistant characteristic.

Prediction of fire-resistant property

1. Most of products are mixture of two materials, which makes even harder to predict the fire-resistant property.
2. One of alternative way to predict fire-resistant property is measuring heat release rate by using cone-calorimeter.
3. The below image is cone-calorimeter.

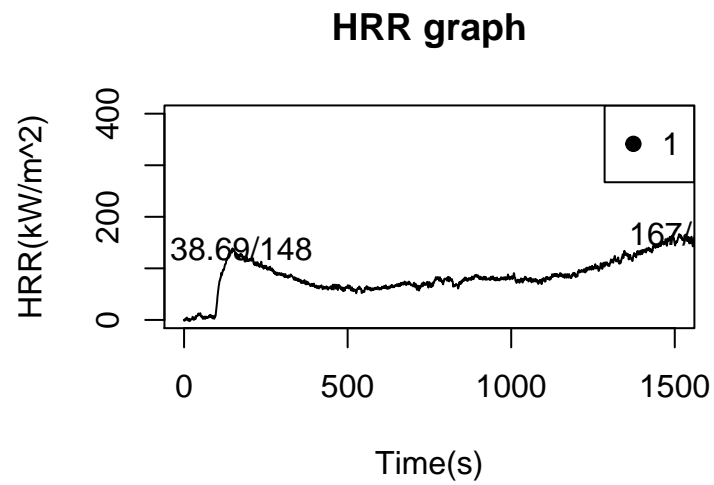
Heat release rate diagram UI

1. This US shows the HRR data measured before.
2. If you enter a number into 'Test ID', then the server will find the data according to ID.

(Test ID is the number between 1 ~ 350. There are some missing ID however most of number has data)

3. At the main frame(right side), a HRR(Heat Release Rate) graph will be shown as below.

```
source("FR-Function.R")  
hrr_plot(1)
```



Detail function

1. You can adjust graph with changing the value below.
2. Time max value : as time axis, it represents the maximum value of “X” axis
3. HRR max value : as HRR axis, it represents the maximum value of “Y” axis
4. Valley time : By this time(X axis), two maximum values(before/after valley time) are calculated and shown on the graph.