



中国认可
国际互认
检测
TESTING
CNAS L17490

Test Report

Customer Name: MLILYUSA INC

Customer Address: 11537 KINGSTON PIKE, KNOXVILLE TN 37929

Sample Description: EGO Hybrid(BK) 9"

Model: Hybrid Mattress

Prototype ID: WE

Construction Type:

0.5" Gel AeroFusion Memory Foam + 0.5" PU Foam + Fabric Quilted Cover
8" Individually Pocketed Springs

Size: 1892mm × 965mm × 228mm(± 13mm)

The above sample(s) information was/were submitted and identified by the applicant:

Date of Receipt: 2023-08-19

Test method: 16 CFR Part 1633 Standard for the Flammability (Open Flame) of Mattress Sets

Test Type: Qualified Prototype Test, Confirmed Prototype Test

Test result: Please refer to the following page(s)

Conclusion: The tested sample(s) **complied** with the flammability requirements of 16 CFR Part 1633.

Prepared:

Dongyou Zhang

Checked:

Curb

Approved:



Authorized signatory

Summaries of the Test Information

The mattress specimens without foundation were received from the client on August 19, 2023. The specimens were received in good condition.

Conditioning:

Prior to testing, the specimens shall be conditioned in air at a temperature greater than 18°C (65 °F) and less than 25°C (77 °F) and a relative humidity less 55% for at least 48 continuous hours.

At testing, the test room temperature shall be greater than 15°C (59 °F) and less than 27°C (80.6 °F) and a relative humidity less than 75%.

Test Procedure and Results

The mattress was placed on a metal test frame inside a test room having dimensions of 10' X 12' with 8' high ceiling. The mattress and frame were located on the wall opposite the doorway. The room is configured in accordance with Test Room Layout Option B as specified in 16 CFR 1633.

The ignition source was the NIST Dual Burner System constructed of stainless steel tubing The fuel used was commercial propane delivered at a rate of (12.9±0.1) l/min to the top burner for a total time of 70 seconds and a rate of (6.6±0.05) l/min to the side burner for a total time of 50 seconds.

After ignition of the burner, we monitored recorded certain properties of the test procedure. These properties are Heat Release Rate and Total Heat Release.

Photos and video were taken of the specimen during the procedure. Please reference Photo 1 through 4 for each representative samples, before, during and after testing to this standard.

Test Criteria:

- (i) The peak rate of heat release shall not exceed 200 kW at any time within the 30minute test; and
- (ii) The total heat release shall not exceed 15 MJ for the first 10 minutes of the test.

The test was conducted at the following address:

Pin Jian Testing Technology (SuZhou) Co., LTD.

Building 2, Shengchuang science and Technology Park, No. 7, Weipu Road, Suzhou Industrial Park, Jiangsu Province, China

Test Date: August 23, 2023

Tested By: Dongyou Zhang

Statements:

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

TEST RESULT(S):

Specimen 1	Maximum Value	Time occurred	Pass/Fail
Peak rate of heat release (kW)	27.9	0:59	Pass
Total heat release in first 10 minutes (MJ)	2.8		Pass
Total heat release (Entire Test, MJ)	2.8		
Test duration	[<input checked="" type="checkbox"/>] 30 minutes, [<input type="checkbox"/>] other _____		

Test room temperature 25.9 °C; Relative humidity 64 %.

Time out of conditioning room 10:55 Test start time 11:02.

Observations:

Time (h:min)	
11:02	Test was started.
11:17	The flame on the side surface was extinguished.
11:19	The flame was extinguished.
11:32	Test was stopped.

Reference Figure 1 and 2 for graphic depiction of the peak rate of heat release and total heat release over time.



Graphical Results:

Figure 1. Heat Release Rate vs. Time Graph

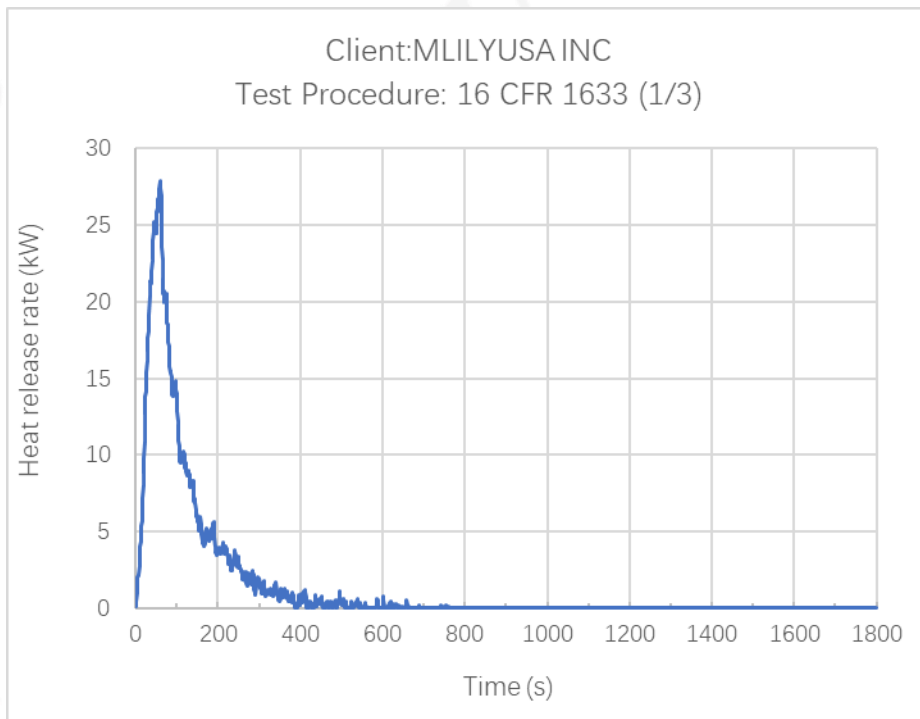
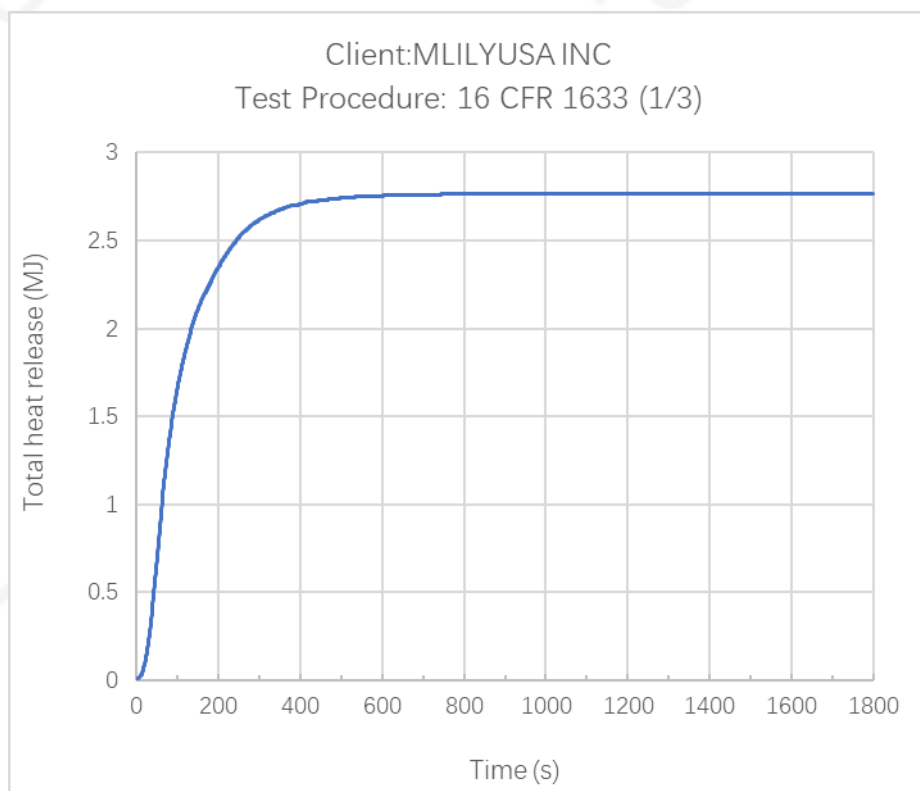


Figure 2. Total Heat Release vs. Time Graph



Specimen 2	Maximum Value	Time occurred	Pass/Fail
Peak rate of heat release (kW)	27.4	1:01	Pass
Total heat release in first 10 minutes (MJ)	3.4		Pass
Total heat release (Entire Test, MJ)	3.5		
Test duration	[<input checked="" type="checkbox"/>] 30 minutes, [<input type="checkbox"/>] other _____		

Test room temperature 26.8 °C; Relative humidity 63 %

Time out of conditioning room 11:40 Test start time 11:47 .

Observations:

Time (h:min)	
11:47	Test was started.
11:54	The flame on the lower surface was extinguished.
12:05	The flame was extinguished.
12:17	Test was stopped.

Reference Figure 3 and 4 for graphic depiction of the peak rate of heat release and total heat release over time.



Graphical Results:

Figure 3. Heat Release Rate vs. Time Graph

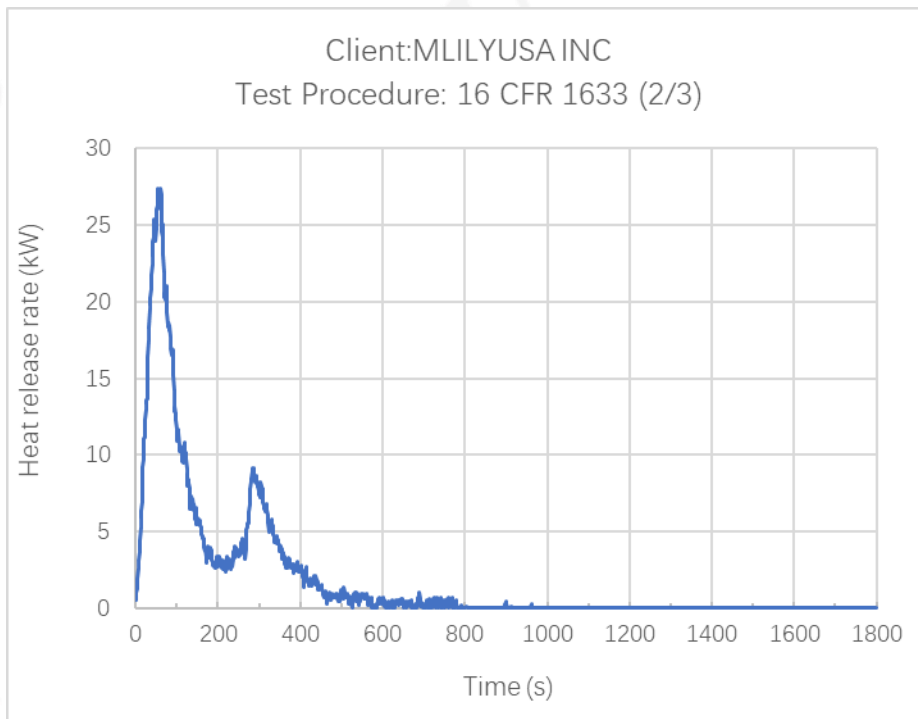
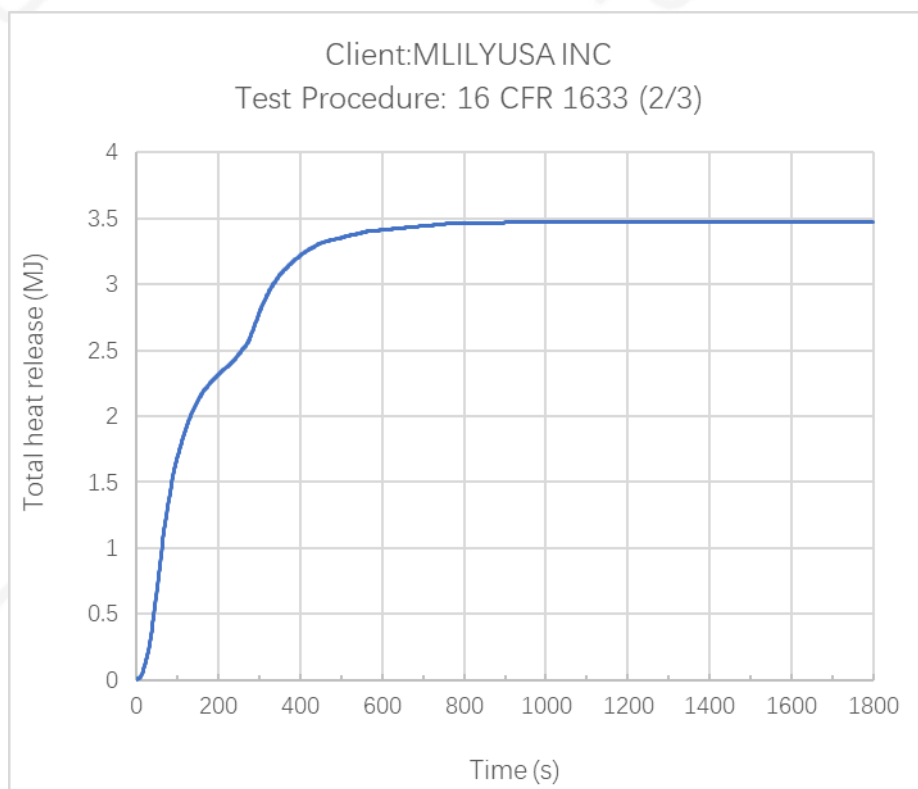


Figure 4. Total Heat Release vs. Time Graph



Specimen 3	Maximum Value	Time occurred	Pass/Fail
Peak rate of heat release (kW)	29.1	0:55	Pass
Total heat release in first 10 minutes (MJ)	3.8		Pass
Total heat release (Entire Test, MJ)	4.4		
Test duration	[<input checked="" type="checkbox"/>] 30 minutes, [<input type="checkbox"/>] other _____		

Test room temperature 26.1 °C; Relative humidity 65 %.

Time out of conditioning room 13:25; Test start time 13:32.

Observations:

Time (h:min)	
13:32	Test was started.
13:45	The flame on the lower surface was extinguished.
13:57	The flame was extinguished.
14:02	Test was stopped.

Reference Figure 5 and 6 for graphic depiction of the peak rate of heat release and total heat release over time.



Graphical Results:

Figure 5. Heat Release Rate vs. Time Graph

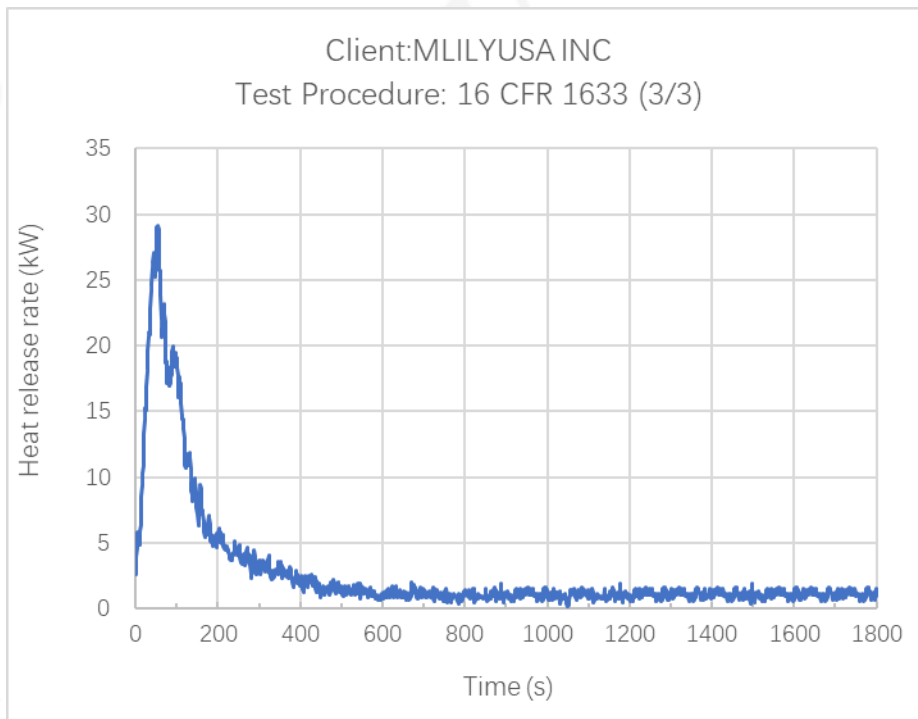
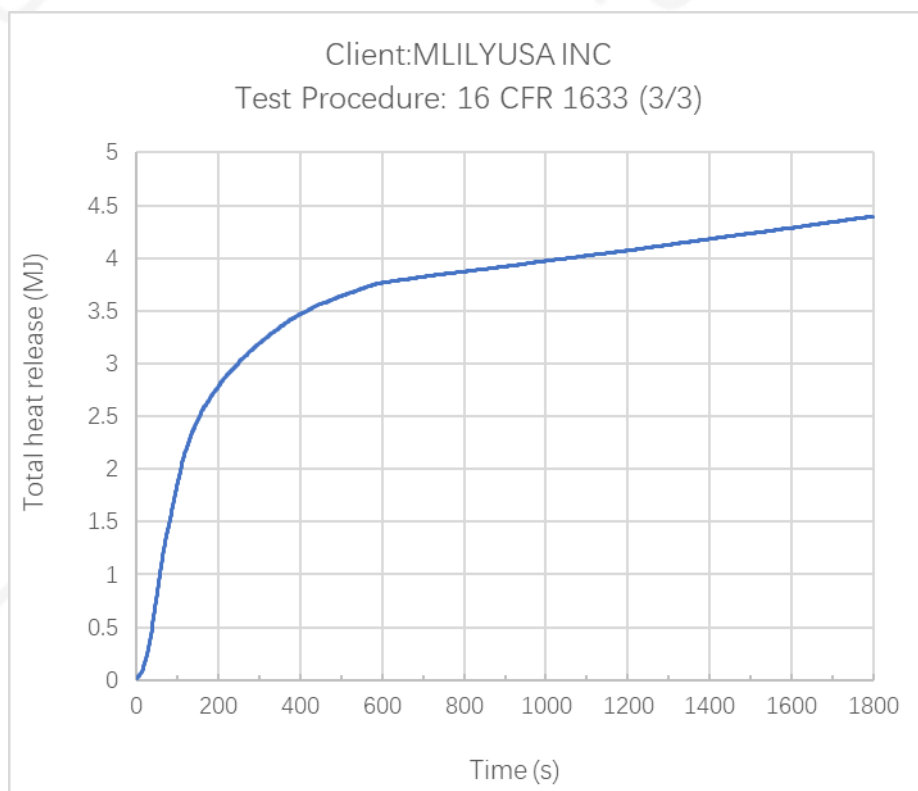






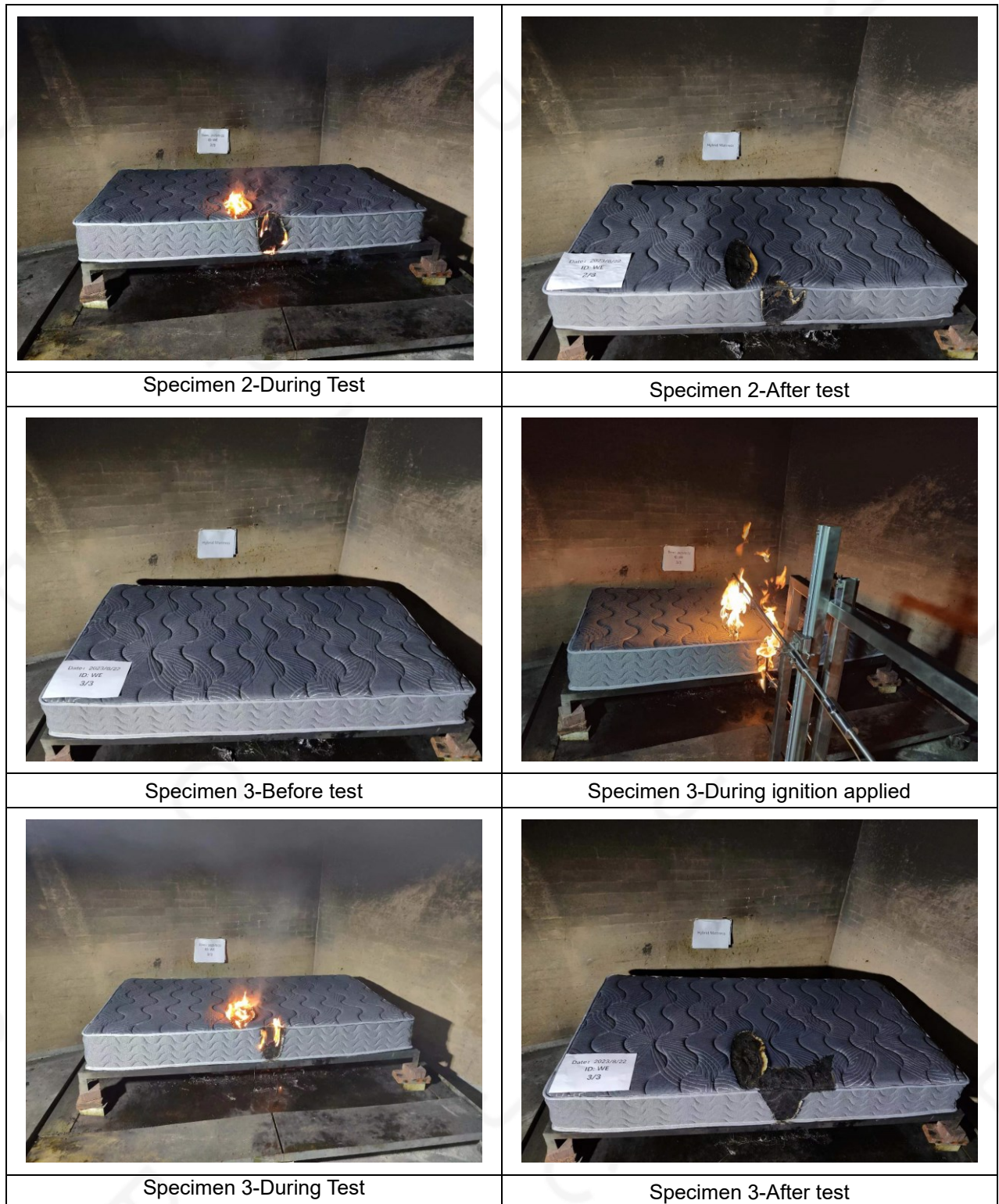


Figure 6. Total Heat Release vs. Time Graph



Appendix Photos (For testing details, please refer to the enclosed video):

	
<p>Specimen 1-Before test</p>	<p>Specimen 1-During ignition applied</p>
	
<p>Specimen 1-During Test</p>	<p>Specimen 1-After test</p>
	
<p>Specimen 2-Before test</p>	<p>Specimen 2-During ignition applied</p>



Equipment Information:

Equipment	Model	Equipment No.	Calibration date	Next Calibration date
Furniture calorimeter	TTech-CFR1633	PJS-019	2023/4/10	2023/10/09

- The test report was published by Pin Jian Testing Technology (SuZhou) Co.,LTD.

***** End of report*****