



## add.02 Evaluation Test



(Test Items)

1. Stimulus Response Speed
2. Range of Motion
3. Center of Gravity Movement Distance
4. Calorie Consumption & Heart Rate
5. Muscle Activity

Number of Subjects: 20

Item: T-shirt with add.02 material

Test Date: November 29, 2024

Testing Organization: Unitika Garment Tech Co., Ltd.

Research Lab Division, itochu fashion system co.,ltd.

HC Lab

A daily active technology, "add.02", that is expected to enhance performance (reaction speed, flexibility, and core strength) with minimal physical exertion (calories, heart rate, and muscle activity).



## Improvement

Reaction Speed   Flexibility   Core Strength

## Reduction

Calories   Heart Rate   Muscle Activity

By wearing the Add.02 apparel, improvements in reaction speed and flexibility were observed. Additionally, the reduction in calorie consumption, heart rate, and muscle activity during exercise resulted in decreased strain on the body, which is expected to lead to fatigue reduction. Furthermore, the reduction in center of gravity movement distance suggests an improvement in core strength.

**Wearing the add.02 apparel is expected to improve reaction speed, allowing for quicker responses to unexpected situations such as stumbling**

## Test Results

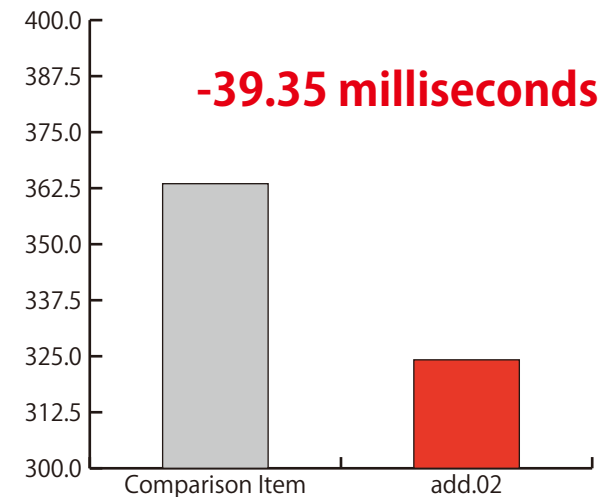
### (Reaction Speed)

The reflex reaction speed improved by 39.35 milliseconds.

Comparison Item: 363.5 milliseconds

Add.02: 324.2 milliseconds

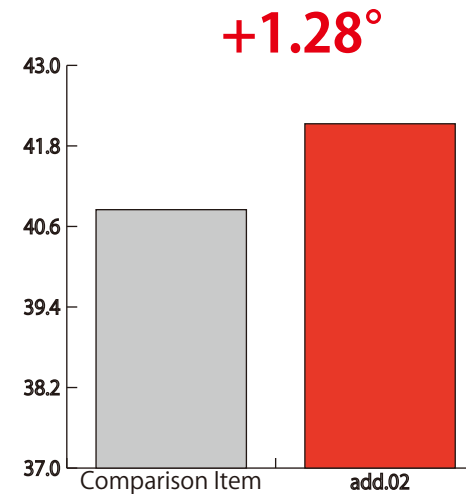
Result: -39.35 milliseconds (faster reflex reaction speed)



**Wearing the add.02 apparel is expected to improve flexibility.**

## — Test Results —

**Maximum Range of Motion Angle**  
**Comparison Item: 40.85°**  
**Add.02: 42.13°**  
**Result: +1.28° (Range of Motion Expansion Rate: 8.5%)**

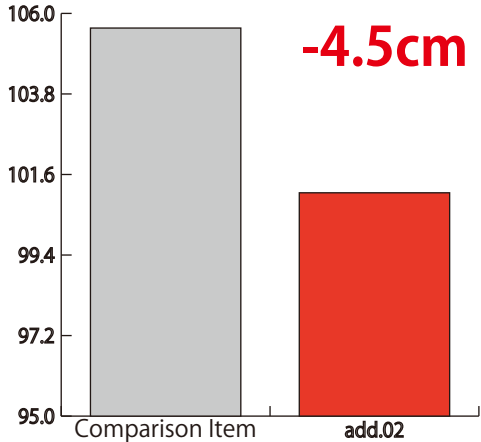


**Compared to the reference wear, the range of motion expanded by 1.28° (expansion rate: 8.5%).**

**Wearing the add.02 apparel is expected to reduce the center of gravity movement distance, leading to improved core balance.**

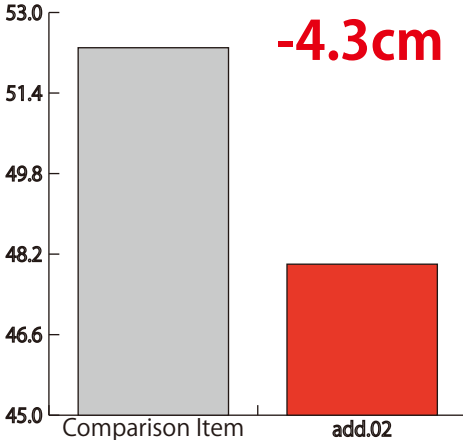
— Test Results —

**Single-Leg Stand on Floor / Eyes Closed**



Comparison Item: 105.6 cm  
Add.02: 101.1 cm  
Result: -4.5 cm  
(reduction in center of gravity movement distance)

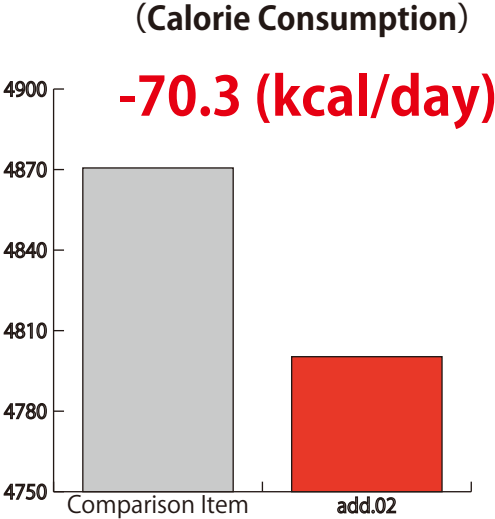
**Balance Board "Both Feet / Eyes Open"**



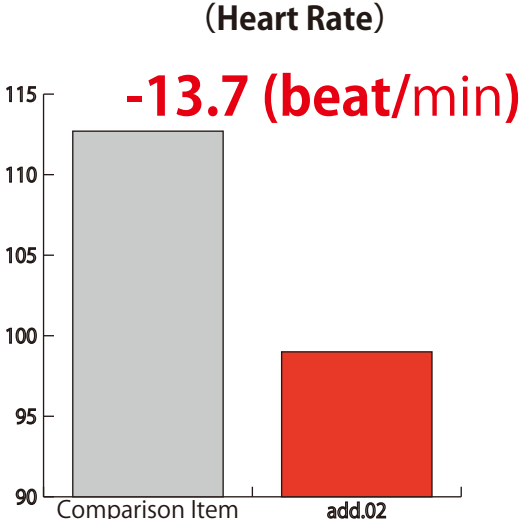
Comparison Item: 52.3 cm  
Add.02: 48.0 cm  
Result: -4.3 cm  
(reduction in center of gravity movement distance)

Wearing the add.02 apparel resulted in a decrease in both calorie consumption and heart rate during exercise, suggesting a potential reduction in strain on the body.

### Test Results



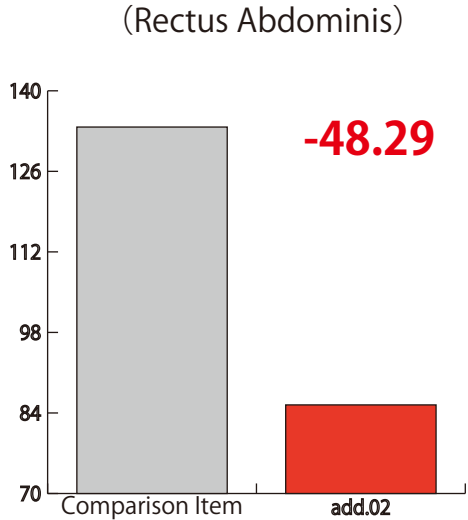
Comparison Item: 4,870.6 kcal/day  
Add.02: 4,800.3 kcal/day  
Result: -70.3 kcal/day (reduction in calorie consumption)



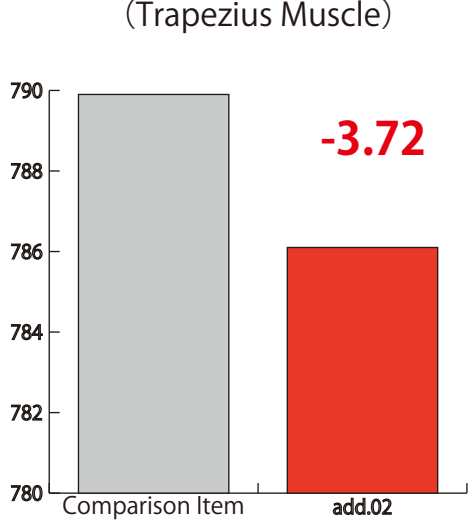
Comparison Item: 112.7 beats/min  
Add.02: 99.0 beats/min  
Result: -13.7 beats/min (reduction in heart rate)

**Wearing the add.02 apparel is suggested to reduce muscle activity, which may improve exercise efficiency and contribute to fatigue reduction.**

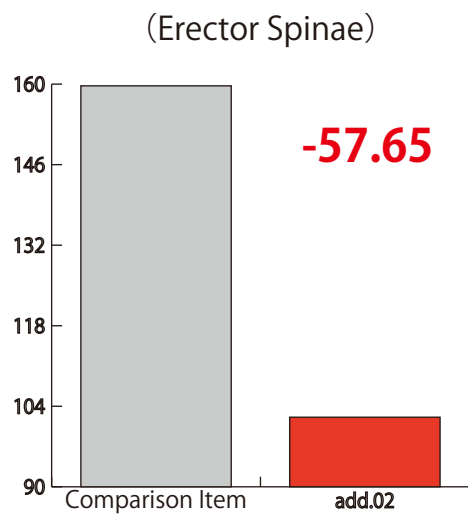
### Test Results



Comparison Item: 133.7 (mV·ms)  
Add.02: 85.4 (mV·ms)  
Result: -48.29 (mV·ms)  
(reduction in muscle activity of the rectus abdominis)



Comparison Item: 789.9 (mV·ms)  
Add.02: 786.1 (mV·ms)  
Result: -3.72 (mV·ms)  
(reduction in muscle activity of the trapezius muscle)



Comparison Item: 159.7 (mV·ms)  
Add.02: 102.1 (mV·ms)  
Result: -57.65 (mV·ms)  
(reduction in muscle activity of the erector spinae)

**There was a significant reduction in muscle activity in the major core areas.**