



BY  
GORE-TEX  
LABS

PYRAD®  
PRODUCTS



# WEARER TRIAL WITH THE NEW ARC RATED PYRAD® UNIFORM BY GORE-TEX LABS

## CONTEXT

Utility workers dealing with electricity face the daily risk of thermal hazards from electric arc flashes. The new Class 2 arc rated PYRAD® suit by GORE-TEX LABS ensures workers' safety without compromise, even in the event of accidental electric arc flash exposures.

To assess the performance of this new technology under real working conditions, a **large-scale field trial** was conducted across Italy, a country that, during the summer months, presents **highly demanding environmental conditions**. With temperatures often exceeding 35 °C, it offered an ideal test bed to verify whether the garment could meet the dual challenge of **thermal protection and wearability in the heat**. The new garments replaced their usual PPE, which was a hybrid solution offering Class 2 protection on the front and sleeves and Class 1 protection on the back.

From June to October 2024, more than 100 professionals from different regions participated in the trial. The arc rated PYRAD® uniform by GORE-TEX LABS, designed by our partner CBF Balducci, was worn during typical utility tasks such as cable laying, confined-space work, maintenance of switch cabinets, and climbing operations.

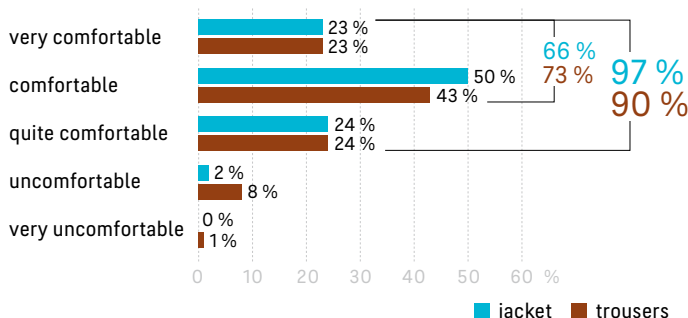
With **more than 3,800 cumulative days of use**, the test provided valuable feedback on comfort, ergonomics, and perceived safety – even in extreme heat.

## WHAT USERS SAID

### COMFORTABLE TO WEAR

97 % of users rated the **jacket** as at least „quite comfortable“, with 66 % „comfortable“ or „very comfortable“.

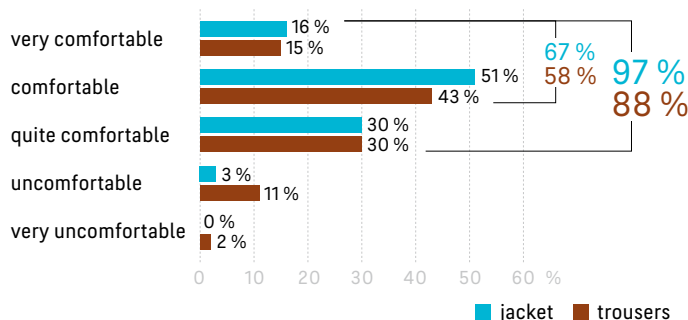
90 % of users rated the **trousers** as at least „quite comfortable“, with 73 % „comfortable“ or „very comfortable“.



Even in the **southernmost regions** where the summer of June to August 2024 was particularly hot, with frequent heatwaves pushing daytime temperatures into the upper 30s and even exceeding 40 °C:

97 % of users rated the **jacket** as at least „quite comfortable“, including 67 % who found it comfortable or „very comfortable“.

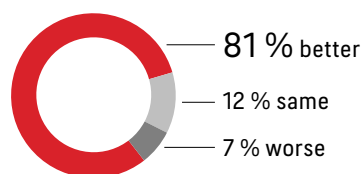
88 % of users said the same for the **trousers**, with 58 % rating them „comfortable“ or „very comfortable“.



„The uniform is definitely better – more comfortable, lighter, and noticeably cooler.“

### FREEDOM OF MOVEMENT

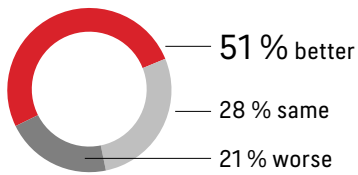
81 % found freedom of movement of the **suit** better than their regular PPE.



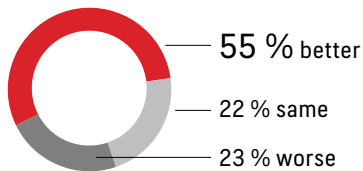
„Truly comfortable, fantastic mobility, and also very durable.“

## THERMAL PERFORMANCE

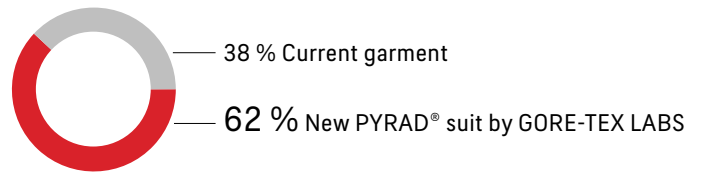
51 % perceived **better sweat management** of the suit compared to current garment.



55 % perceived **better heat dissipation** of the suit compared to current garment.



## OVERALL PREFERENCE AFTER FIELD TEST



*„The jacket, compared to the current one, is of much higher quality. I think it's the most comfortable and practical jacket I've tried.“*

*„Better in every aspect: comfort, freedom of movement, heat dissipation, and sweat breathability.“*

## CONCLUSION

The new solution tested here shows promising results in terms of:

- ♦ Reducing perceived heat buildup
- ♦ Improving wearability during physically demanding work
- ♦ Supporting day-long use with minimal discomfort
- ♦ Enhancing safety by encouraging consistent PPE use as increased comfort reduces the likelihood of garments being removed or worn improperly

## THE ARC RATED PYRAD® UNIFORM BY GORE-TEX LABS COMBINES



CLASS 2 ARC RATED PROTECTION



LIGHTWEIGHT THANKS TO ITS SINGLE PLY



ENHANCED BREATHABILITY, EVEN DURING HIGH-INTENSITY ACTIVITIES



COMFORT FIT, INCREASED FREEDOM OF MOVEMENT WITH LESS MUSCULAR FATIGUE DURING THE TASK

