



FULL REPORT REUSABLE CLEANROOM SOCKS

MICRONCLEAN

REV01

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MICRONCLEAN'S REUSABLE CLEANROOM SOCKS THE CLEANEST SOCKS YOU'LL EVER WEAR?

1.0 EXECUTIVE SUMMARY

The revised EU GMP Annex 1 requires that cleanroom socks should be worn before entry to change rooms for grades A through to C cleanrooms. In response, Micronclean offers a reusable, laundered cleanroom sock that is not only fully compliant but is also more sustainable than single-use alternatives.

However, whilst the Micronclean laundered sock meets all technical requirements, some hesitation remains in the marketplace. To reassure potential users, Micronclean conducted a comparative microbiological analysis, revealing that its cleanroom laundered socks are significantly cleaner than the everyday domestic alternatives.

The results even suggest that Micronclean's cleanroom processed cleanroom socks could be the cleanest you'll ever wear?

2.0 METHODOLOGY: REAL-WORLD USE AND TESTING

To provide a definitive answer, Micronclean carried out controlled testing on domestic everyday socks and cleanroom socks. Each sock was worn for an 8-hour shift, then washed using different processes:

- Domestic wash at 30°C + domestic tumble dry
- Domestic wash at 60°C + domestic tumble dry
- Validated cleanroom laundering process (thermal disinfection + HEPA-filtered tumble drying)

After washing and drying, the socks were sent for microbial bioburden testing.

3.0 RESULTS: A CLEAR WINNER IN CLEANLINESS

Process	Sock Type	Bacteria (CFU)	Fungi (CFU)
Domestic 30°C Tumble Dry	Domestic Sock	TNTC	TNTC
	Micronclean Cleanroom Sock	TNTC	TNTC
Domestic 60°C Tumble Dry	Domestic Sock	TNTC	TNTC
	Micronclean Cleanroom Sock	TNTC	TNTC
Validated Cleanroom Laundering Process	Domestic Sock	129	0
	Micronclean Cleanroom Sock	9	0

TNTC = Too Numerous To Count

Domestic washing, even at 60°C, failed to reduce microbial bioburden to a level that could be counted for both sock types. In contrast, Micronclean's validated laundering process achieved extremely low microbial bioburden levels when used in conjunction with the Micronclean Cleanroom Sock.

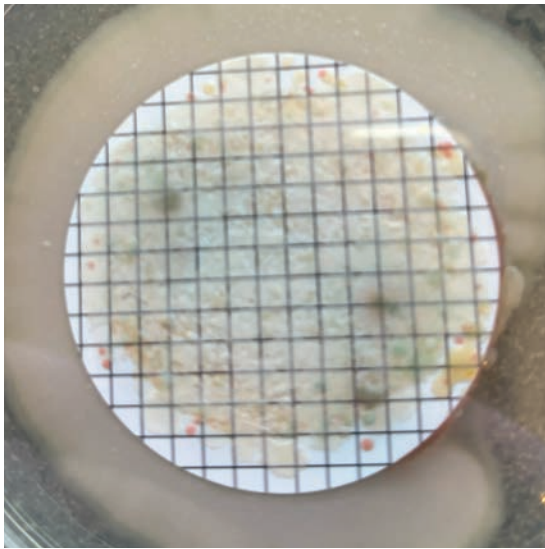


Figure 1: Domestic sock, domestic 60°C washing and tumble-drying process

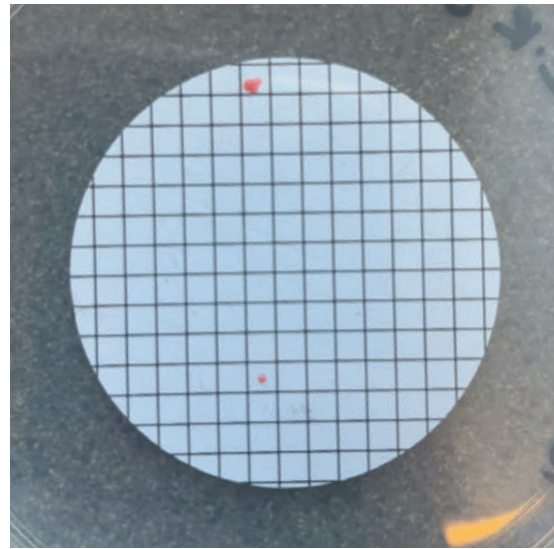


Figure 2: Micronclean Reusable Cleanroom Laundry Processed Sock

4.0 CONCLUSION

Micronclean's reusable laundered cleanroom sock meets the requirements of EU GMP Annex 1 and are:

- Significantly cleaner than domestic-washed socks
- Reusable, reducing waste and environmental impact
- Comfortable and safe for daily use in critical environments

5.0 FINAL WORD

So yes, you are wearing a sock that someone else has worn before. But they are proven to be so much cleaner than the socks you normally wear and they could just be the cleanest socks you'll ever wear?!



Roman Bank / Skegness / Lincolnshire / PE25 1SQ
T: +44 (0)1754 767 377
E: sales@micronclean.co.uk
W: www.micronclean.com

