## <u>Guardtech</u> <u>Group</u> MICRO-ELECTRONICS



**NIPPON** EXPRESS

### THE CLIENT

Nippon Express – a Japanbased logistics company with a global reputation. The client began working as a logistics provider more than 80 years ago and their ground transportation business dates back to 1872. Combining the latest logistics technology with high-quality service and the ability to offer customised solutions, Nippon Express's global logistics services are ideal for customers seeking to grow their businesses.

### THE BRIEF

This was a slightly more unusual installation for the Guardtech Cleanrooms team, as it was the construction of a cleanroom inside an existing coldroom host space. Nippon Express required a cleanroom to support equipment assembly for one of their clients at a premises based in Dublin, Republic of Ireland.





60m<sup>2</sup>

Micro-electronics

21+/-3 C 50-10% RH



Guardtech group International Case Study

**Dublin, Ireland** 

#### "A pleasure to collaborate with Guardtech again..."

NSP Expert Lab Solutions Managing Director Graham Devitt said: "It has been a pleasure to collaborate with Guardtech again to deliver a 60sqm modular build in Dublin. Their knowledge, experience, quality and attention to detail have yet again ensured that this project was delivered in a successful, timely and professional manner. Mark, Conor, Andrew and the Guardtech team are experts in their area and always a pleasure to work with and we look forward to collaborating on many more projects together in the future."

> **Graham Devitt** NSP Managing Director

> > Expert Lab Solutions



# MICRO-ELECTRONICS



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### THE TECH SPECS

A controlled environment designed, installed, cleaned and commissioned by Guardtech built to the following specification:

◆ **Structural:** GT Shell Plus QuadCore semi-flush wall panels, GT Lid Pro ceiling panel system, GT Access Lite single doors, GT Deck Plus flooring in Sapphire Blue swatch with back rubber capping.

• **Electrical:** 13amp sockets contained in surface-mount trunking.

◆ **Mechanical:** GT Flow Plus H14 HEPA Fan Filter Units with G4 Pre-Filters achieving 119 air changes per hour, GT Air Pro close control Upflow CRAC Unit.

### THE CHALLENGES

No ceiling too high: Overall, the build was straightforward with no awkward shapes to negotiate. The ceiling was a fully suspended rare 1200x1200 grid ceiling housing 1200x1200 large HEPA filter full units. The main challenge was the height of the room and only having one member of the team permitted to operate a scissor lift. However, the Guardtech team are always prepared to think outside the box – and so they figured out a system to lift all the ceiling panels up using a mechanical material hoist, before slotting in and fixing the panels.

The ceiling and lifting of the materials proved by far the most challenging aspects of this build, but with the right aids combined with lifting capacities, the team achieved the build in a safe manner. Guardtech went the extra mile, making sure every panel was levelled, quad fixed and every single joint sealed while air return plenums were sealed internally as well as externally. The team treated the bare



concrete to minimise particle generation within the cleanroom system. The fresh air inlet was filtered additionally with easy access servicing in mind.

Interlock down: The team had a to install a full retrofit interlocking system – and they managed to fix the push bottom and emergency releases flush to the wall.

**Concrete solution:** The team also placed a black rubber expansion strip on the floor to one side – as underneath the client's concrete floor had an expansion gap.

### THE RESULT

NSP Expert Lab Solutions Managing Director Graham Devitt said: "It has been a pleasure to collaborate with Guardtech again to deliver a 60sqm modular build in Dublin. Their knowledge, experience, quality and attention to detail have yet again ensured that this project was delivered in a successful, timely and professional manner. Mark, Conor, Andrew and the team are experts in their area and always a pleasure to work with and we look forward to collaborating on many more projects together in the future."