

Case Study

Service: Slab Loading Test

Location: BMS DUBLIN

Client: Erith Contractors

Swantest were contracted by Erith Contractors to perform a loading test on the 5th floor slab at BMS Dublin.

This is a steel frame building with rib deck type internal slabs former pharmaceutical. Due to the use of the building, it had specialized equipment and machinery with potentially harmful chemicals, which required a delicate removal operation. The building was separated into two different sections, dirty and clean.

The purpose of this test was to determine a safe working load capacity on the existing slabs. Due to the size and integrity of the structure the site team would require 21t excavators to facilitate in the demolition works.

The test set up was to simulate the worst case loading on one panel of the slab. The test load was calculated at 500kN (50t) at midpoint and at the shear edge. This gave the client a safety factor of 3 to authorize use of a 20t machine.

Key to images:

- 1.) First test restraint setup.
- 2.) Test setup mid span
- 3.) Test setup at shear edge
- 4.) Graph showing deflection against the load.

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