

Case Study



Property Owner

Black Rose Lifestyle Limited



Acoustic Consultant

Resonate Consultants

Stravigym XP

- Stravigym XP with dBooster® technology and GympactLayer-45 on deadlift zone (high impact)
- Stravigym GympactLayer-20 on low impact zones

OVERVIEW

Located in the heart of Skerries, Black Rose Gym is on a mission to inspire their members to believe in themselves, motivating them to work hard and have a positive impact on the lives of others.

Having a positive impact on other people's lives is also about the neighbours and their comfort. That is why Resonate Consultants have been engaged by Black Rose Gym to assess the existing noise levels in the gym and provide practical advice to reduce noise pollution from the gym to the adjoining residential property.

The most well-known gym floor systems were considered as possible solutions. Weight drop tests were carried out using a 30 kg dumbbell, which fell from thigh height for all scenarios using mats. Additional weight drop tests were performed using 10 to 25 kg dumbbells and 60 to 20 kg barbells.

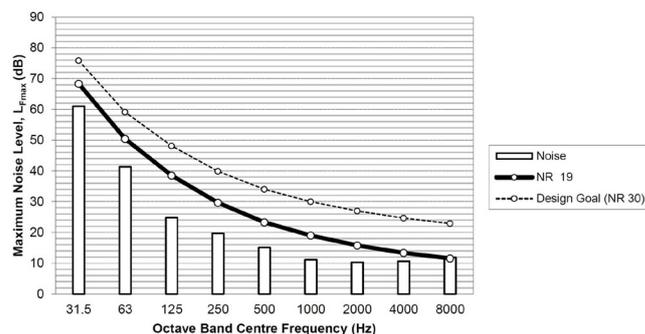
For each test, the L_{AFmax} and L_{Fmax} spectra were measured in the room where the acoustical problem occurs. The L_{Fmax} spectra were compared with the NR curve to confirm that the low frequency content was not too high.



SOLUTION

By installing a [Stravigym XP](#) system with [dBooster®](#) technology and [GympactLayer-45](#) as an impact absorption layer gives the following results: L_{Fmax} of NR19 on the ground floor and first floor, well within the NR30 target criteria.

Based on these test results, a [Stravigym XP](#) system was used on the deadlift zones and [GympactLayer-20](#) on the low impact zones.



AT A GLANCE

CHALLENGES

- Addressing noise complaint from neighbours
- Acoustical target criteria: NR30

BENEFITS

- Quick and easy to install
- L_{Fmax} of NR19 on the ground floor and first floor, well within the NR30 target criteria.
- Effectively and safely manages high-impact energy

105 m²

Stravigym
GympactLayer
-20

87 m²

Stravigym XP
with dBooster®
technology

