NEOPRENE RUBBER STRIPS USED FOR JOIST ISOLATION AND BUILDING SOUND INSULATION

Reglin Neoprene 60 HG Rubber was used as a bearing strip for noise reduction between structural timber flooring panels and steel beams in the construction of a multi-storey building.

PROJECT

Construction of Multi-level office building in Melbourne city.

Reglin Neoprene rubber isolating strip.

Positioning of neoprene 60 HG rubber strips on steel beam joists.

CHALLENGE

Flexible and compressible isolation strips were required for quick installation.

A newly designed multi-storey office building in Melbourne's CBD was being constructed with a structural steel frame which also required installing the newly released, Cross Laminated Structural Timber Panel Flooring System. This system needed to be quickly installed on each storey of the steel frame structure prior to the next level being started.

It was also critical to ensure that the flooring system be installed onto the steel beams with maximum contact to the surface area and be secured in such a way to allow for the varying expansion between the steel and timber materials. Insulation was also required between the flooring system and structure to assist in compliance with the Building Code of Australia (BCA) Sound Insulation Regulations between floors.

The customer ultimately required a flexible and compressible isolation layer between the flooring timber and steel beams, which ensured long-lasting performance. A fast solution was also critical to meet the construction timeline for the initial flooring to be installed without delay.

OUTCOME

Neoprene Rubber Strips and pads were supplies to meet bearing strip requirements as per construction timeline.

Reglin Rubber supplied Neoprene 60 HG Rubber Strips and Pads which were installed on the steel beams beneath the flooring panels to create a flexible joint. The premium Neoprene 60 HG Rubber's physical properties meant it was ideally suited for this application. The rubber's high load bearing capacity was not only ideal for the timber flooring panels but also for the trafficable loads that the construction needed to deliver once the office building was in use.

OUTCOME (Continued)

The compressibility and compression set properties of Neoprene 60 HG allowed for the absorption of the variances in the rigid steel beam structure, ensuring the maximum surface contact area with the timber flooring. This effectively reduced the movement between the building materials and the potential for structure-borne noise transmission.

Reglin Neoprene 60 HG Rubber Strips performed ideally and met the customer's expectations.

The Reglin Neoprene 60 HG Rubber Strips and Pads were fit for purpose and were a successful and fast solution for the installation of the laminated timber flooring panels. This rubber solution also worked effectively to deliver a flexible floor jointing system, which met all requirements for building material movement challenges and the Australian building sound insulating regulations.