

ADELAIDE AIRPORT TERMINAL - CASE STUDY

March 2020

WHAT WAS THE CHALLENGE?

challenge.



A portion of the original partition insulation schedule was detailed with high density rock mineral wool products to achieve the desired acoustic requirements of a minimum Rw rating of 50. The insulation was also required to be non-combustible to comply with the fire performance requirements of the building class to which the project was designed.

WHAT PRODUCTS WERE USED?

create.



Knauf Insulation was engaged by the plastering contractor, Exclusive Commercial Linings to assist in value engineering the system with preferred products to meet the minimum specification requirements. "Insulation has come a long way," commented Damien Cashman of Exclusive Commercial Linings. The softer touch of Earthwool® insulation in comparison to other glasswool products, is a considerable benefit for contractors during installation. "It's user-friendly and price-friendly, too," added Cashman.

Knauf Insulation recommended the use of Knauf Insulation Acoustic partition 11 kg/m³, 75mm for the internal metal frame partitions, which can improve Rw ratings by up to 10 decibels, depending on the stud construction and complexity of the wall configuration and thickness. The insulation was supplied by Adelaide Plaster Centre, who have a long standing relationship with Knauf Insulation. "Earthwool® is our chosen insulation, as they are known for their proven performance, durability, superior handling, convenient packaging and superior service and support," said Luke Richards, Specification Manager for Adelaide Plaster Centre. The insulation achieved the project's acoustic and fire performance requirements in conjunction with additional plasterboard and plywood systems.

Knauf Insulation Acoustic partition improves the acoustic performance of buildings by absorbing the transfer of unwanted sound from external sources and between adjoining spaces. Produced using up to 80% recycled glass, the product is also made with ECOSE® Technology, a sustainable, bio-based binder with no added formaldehyde. With similar attributes and exceptional acoustic and energy saving properties, Earthwool® R2.5HD SoundShield insulation was used in the external metal frame to achieve the required total system R-Value of R2.7, in conjunction with internal linings and external façade finishes.

WHAT WAS THE RESULT?

care.



The recommended product specification was accepted by the architect and builder, with all parties satisfied that the solution delivered the performance requirements for acoustic, thermal, and fire performance criteria. "With the newer sections of the airport built very differently, it was important to consider updated building regulations and the specification needs of the project," commented Cashman. "We presented Knauf Insulation products after doing our homework; they are also easier to install and better for installers."

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