

The Braggs Building, University of Adelaide

MasterFlow 4600



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The Background:

The Braggs Building is a major cancer research and medical facility at the University of Adelaide. The building houses innovative technology and a unique suite of transdisciplinary laboratories that provides researchers with more than 10,000m² of research and educational space.

The Challenge:

Due to their research into nuclear medicine, the building needed to be shielded with steel panels to ensure no radiation could escape the facility. The logistics of the project proved difficult, as the contractor, Portolesi Structural Group had to grout the steel panels into voids of the existing walls.

Our Solution:

Master Builders Solutions determined that MasterFlow 4600 was the only suitable grout for the project due to its high weight per/m³, pumpability and ultra-high early/final strengths. The original specification stated that the grout needed to weigh 2,800kg/m³, as the high density of the grout would ensure all traces of radiation escaping the facility would be minimised.

Project:

The Braggs Building, University of Adelaide

Location:

Adelaide, South Australia

Project completed:

2022

Owner/s:

University of Adelaide

Applicator / Contractor:

Landlease/ Portolesi Structural Group

Products used:

MasterFlow 4600

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Master Builders Solutions was the only supplier to meet this specification. To ensure no voids were present between the steel panels, MasterFlow 4600 was pumped between each 50mm void. Due to its high flow characteristics, the grout easily filled all voids in the structure.

The works began in late January 2022, resulting in a final sign-off in March - once the panels were installed and signed off by the asset owner. In total, more than 15 pallets of MasterFlow 4600 were used on the project to ensure all staff and the public were safe from the radiation present in the lab.

The Customer's Benefit:

- MasterFlow 4600 met the material density specification, by providing high flow, zero bleed grout that was suitable for pumping.
- Master Builders Solutions provided technical advice and guidance for mock-up trials undertaken before the large scale installation.

Project Facts at a Glance

- The building needed to be insulated with steel panels to ensure no radiation could escape the facility, meaning steel panels needed to be grouted into voids of the walls of the existing structure.
- MasterFlow 4600 was the only grout able to meet the technical specifications.
- Due to its high flow characteristics, MasterFlow 4600 easily filled all voids in the structure.

Master Builders Solutions

Master Builders Solutions is a leading global manufacturer of concrete admixtures, as well as other sustainable solutions for the construction industry, focused on delivering its vision: Inspiring people to build better. Master Builders Solutions provides value-added technology and market-leading R&D capabilities to improve the performance of construction materials and to enable the reduction of CO2 emissions in the production of concrete. Founded in 1909, Master Builders Solutions has more than 1,600 employees and 35 production sites globally with over 150 employees and 6 production sites operating across Australia and New Zealand. Master Builders Solutions supports its customers in mastering their building challenges of today – for a decarbonised future.

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