



Qantas Group Pilot Academy

A sustainable aviation development for Toowoomba

Australia's next generation of pilots will be calling Toowoomba home when the Qantas Group Pilot Academy, in partnership with Flight Training Adelaide (FTA) commences the first intake of students in September 2019.

This pioneering training academy is another landmark project delivered by **Wagner Corporation** that will irrevocably change the face of Toowoomba, when a blank canvas is developed into a world leading aviation campus.

Project value: over AU\$40 million

- \$11,765,750
Taxiway, Hanger & Training Facilities
- \$4,400,000
Roads
- \$17,550,000
Village

A combined drive for innovation and sustainable infrastructure development will see **Wagner Corporation** utilise **Wagners' New Generation Building Materials EFC®** and **CFT®** in the construction of this project.

EFC® has won a number of Australian industry and government awards recognising the performance, innovation and sustainability contribution of this new class of concrete.

This new class of concrete contains absolutely no ordinary Portland cement. Instead of cement, **EFC®** has a geopolymer binder that is made from the chemical activation of two industrial waste by-products – blast furnace slag (waste from iron production) and fly ash (waste from coal fired power generation).

This alternative eco-friendly binder technology reduces the carbon emissions associated with normal Portland cement by 80 - 90%, and also has a much lower embodied energy. For every m3 of 40 MPa **EFC** used, the environment is saved 200kg of CO2 emissions.

EFC® geopolymer concrete is a fully commercial technology that has already been proven in major projects in Australia including Toowoomba Wellcamp Airport that incorporated over 50,000m2 of heavy-duty aircraft pavements for the taxiway and turning node areas.

Toowoomba Wellcamp Airport will also host one of two regional sites for the QGPA, with a capacity to train up to 250 pilots per year from Australia and abroad.

The Academy is part of the Qantas Group's strategy to build a long-term talent pipeline for its own airlines and help the broader industry meet the increasing need for skilled aviators.

The QGPA construction will use 6,000 m3 of **EFC**, saving 1,284 tonnes of greenhouse gas emissions.

EFC CHARACTERISTICS

- High sulphate resistance
- High chloride ion ingress resistance
- High acid / sewer resistance
- Low shrinkage
- Low heat of reaction
- High flexural tensile strength

CFT CHARACTERISTICS

- No corrosion
- No wood rot, splitting or warping
- Colour fast fluropolymer coating
- Zero maintenance for 40 years
- Design life of 100 years