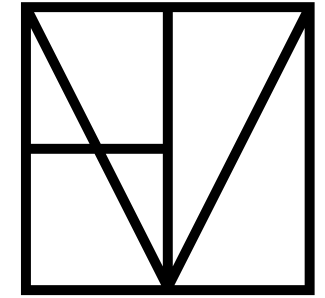


TRANSPORT INFRASTRUCTURE



METZ®

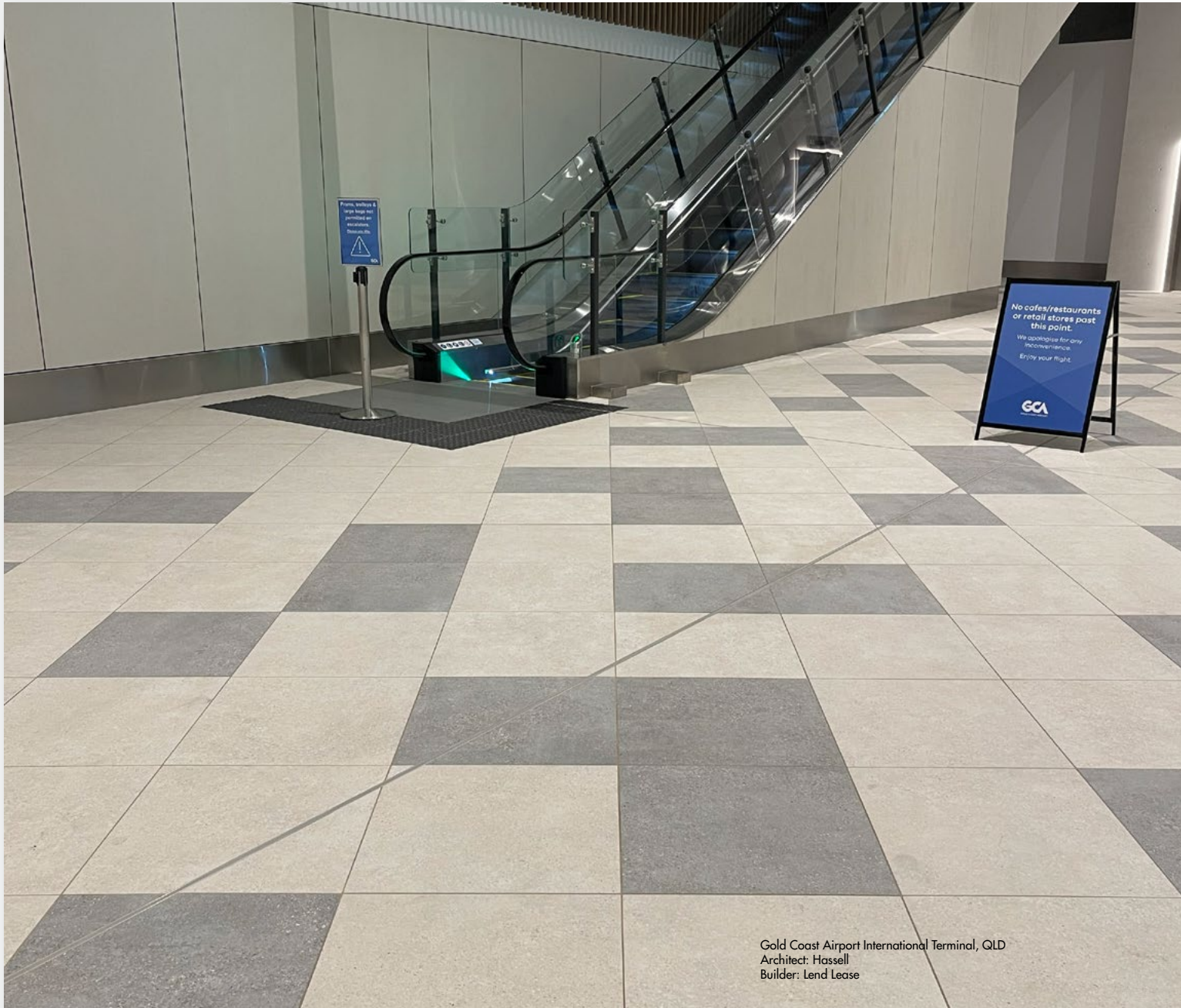
*Your partner in transport
infrastructure.*



Ballajura Station, WA
Client: Metronet
Architect: Woods Bagot

Build for safety and style with:

- ▶ Specialty slip resistant tiles
- ▶ Facade & awning solutions
- ▶ Tactile Indicators
- ▶ Wall Tiles & decorative solutions



Gold Coast Airport International Terminal, QLD
Architect: Hassell
Builder: Lend Lease

Specialty Slip Resistant Tiles

*They say every journey begins with a single step. Metz specialty slip resistant tiles ensure **every** step is as safe as possible.*

Metz' exclusive Sicodur® and MicroGRIP® finishes set the benchmark for sustainable slip resistance. Sicodur® and MicroGRIP® are custom made in Europe to our specifications and rigorously tested in Australia to ensure they meet our high standards for slip resistance.

These finishes are proven to achieve outstanding 'whole-of-life' slip resistance performance an essential criteria for high traffic applications like transport hubs.

Set the standard with your designs, choose across the board achievement in safety, aesthetics and value, make the first step in your selection process specifying a Metz floor.



What is **sustainable** slip resistance?

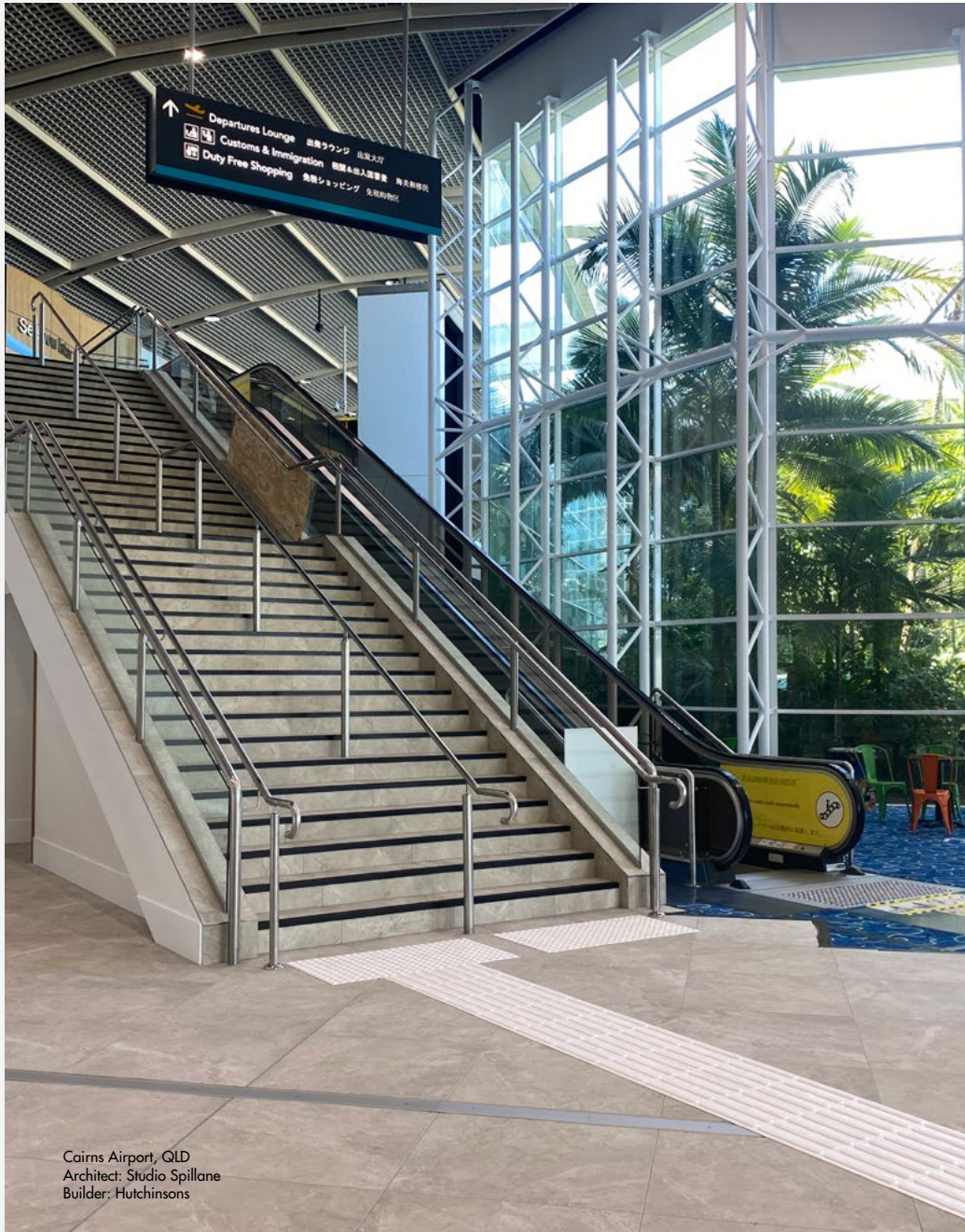
Put simply, this is the level of slip resistance that can be reasonably expected to be sustained over the many years of a product being in service.

Isn't a regular slip test enough?

Under standard slip resistance tests, many products score an unrepresentatively high result when brand new, straight out of the box. Many factors, including deposits or grit on the tile left over from the manufacturing process, can influence the results of a slip test. In some cases, even small amounts of wear can drastically reduce the slip resistance of a tile. After the floor is installed and has undergone a routine post-construction clean, a product receiving a P5 result straight out of the box could test at P3 or lower. *Designers and specifiers need to determine whether the slip resistance test results supplied are likely to be sustained over time.*

How to test for sustainable slip resistance

Slip test results can easily be supplied to show the result when new as well as after Accelerated Wear Testing (AWT). The same laboratories (CSIRO, Safe Environments and ATTAR) who perform the slip resistance tests, will also provide AWT testing on request. AWT testing, as the name implies, involves applying wear to the product's surface, then re-testing the slip resistance. The degree of wear applied is referred to by the number of cycles. Small amounts of wear like 50 and 100 cycles will easily identify items that show an unrepresentative result when brand new. Results after a greater amount of wear cycles 500, 1,000 and 5,000 cycles indicate the products that provide the most sustainable slip resistance. Metz provides AWT results at 5,000 cycles for our Sicodur® and MicroGRIP® finishes, the maximum number of cycles used.



Cairns Airport, QLD
Architect: Studio Spillane
Builder: Hutchinsons

Level of service duty

Transport infrastructure projects are among the busiest applications for a commercial floor, subject to thousands of commuters in all types of weather conditions, frequently in a rush and often distracted. Metz recommend highly slip resistant products like our Sicomur® and MicroGRIP® finishes for such applications.

How much sustainable slip resistance?

Despite the complexity of this issue, there is one driving factor that overwhelmingly characterises the risk of a slip incident occurring... ***any floor receiving a pendulum test result lower than 30BPN will result in users slipping if it gets wet.***

Many specifiers therefore treat 35BPN as the minimum safe pendulum test result they require for areas that are going to get wet. Remember, this result needs to be sustained throughout the life of the floor, not just on day one.

Keep it dry - or over 35BPN

Virtually all slips occur on a wet floor, but not all wet floors are slippery. Controlling the masses on a "slippery when wet" floor is costly, time consuming and presents an ongoing risk, forever, until the floor is replaced.

Floors in high traffic areas more likely to get wet, and it's not just bad weather and accompanying water from umbrellas and raincoats that poses a risk. A spilled coffee or even food from nearby outlets is considered a wet floor. Adequately slip resistant tiles (over 35BPN) are a necessity on all floors that are even 'occasionally' wet.



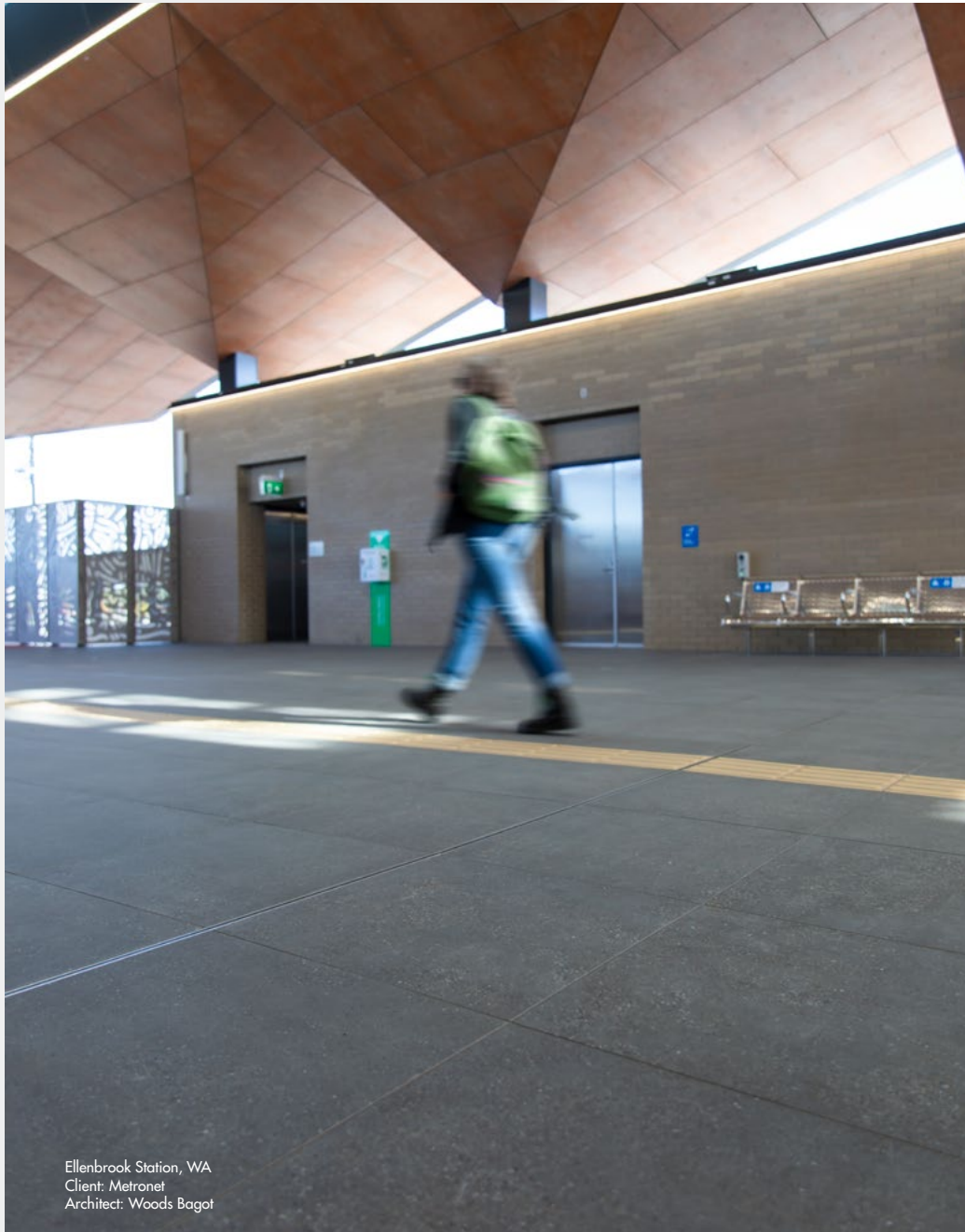
A range of factors including product selection result in this concourse being more difficult to clean due to a variety of associated risk factors.

Floor cleaning and risk management - Everywhere a sign

The adjacent image shows a cleaner working on a “slippery when wet” floor, with an area cordoned off and signage placed. The cleaner is also using a fabric head mop. When a fabric mop is being used, it is unlikely that the floor is rinsed afterwards, resulting in a solution of detergent and dirty water being spread around by the dirty mop and then left to dry.

Risk factors /issues associated with this kind of cleaning operation:

1. Floor is slippery enough that barriers are required to cordon off any wet areas
2. When are the barriers removed? How dry does the floor need to be beforehand? Who makes this decision?
3. The cleaning process (detergent level, rinsing, frequency of cleaning) can increase the risk of someone slipping, even after the floor is dry, if not done correctly
4. Areas that have been poorly cleaned and/or not rinsed, often have a build-up of dried out soil and detergent. If these areas become wet from a spill or tracked-in water, the contamination can make the floor even more slippery



Ellenbrook Station, WA
Client: Metronet
Architect: Woods Bagot

Selecting a product with the right amount of slip resistance for the application, accompanied by an appropriate cleaning regime, will always be simpler than trying to manage risk with signage.

The smarter choice: slip resistant porcelain tiles

The risk to patrons of slipping on floor that is wet from a recent cleaning should be managed from the beginning by selecting a tile with the right amount of slip resistance. In a high traffic area, like that of a transport hub concourse, a P5 rated tiles that performed well after accelerated wear testing is ideal.

Cleaning Metz Sicodur® and Metz MicroGRIP® floors

Metz MicroGRIP® and Sicodur® highly slip resistant tiles provide sufficient slip resistance to be wet cleaned while remaining operational. Staff and users in general will be able to traverse the area being cleaned with a minimal risk of slipping.

All MicroGRIP® and Sicodur® are porcelain and therefore non-staining.

For full details, refer to our Metz Cleaning Instructions brochure.



Metz Sicodur®

Metz Sicodur® sets the benchmark in long term slip resistance performance. Sicodur® tiles commonly retain a P5 slip rating after 5,000 cycles of AWVT. The extra thickness of 12mm porcelain provides higher durability of service in heaviest traffic areas. Commercial look speckled finish achieves a timeless appearance that masks the effects of years of wear.



Metz MicroGRIP®

Metz carry stock of a large selection of our tiles in MicroGRIP®. Most Metz architectural ranges of floor tiles can be produced in our custom manufactured MicroGRIP® finish. MicroGRIP® is not an applied treatment but a specific surface that is created as an integral part of the tile body, prior to firing in the production kilns. In most cases the production as a MicroGRIP® finish has little effect on the decorative character of the tile, meaning that Metz MicroGRIP® offers complete design freedom to select styles from across our tile ranges.



Cairns Airport, QLD
Architect: Studio Spillane
Builder: Hutchinsons

Bathrooms and amenities

Clean bathrooms play an important role in how facilities are experienced by the public.

Metz porcelain tiles are non-absorbent and won't stain. Our Sicodur® and MicroGRIP® finish tiles are highly slip resistant, allowing them to be wet cleaned without closing off the area to patrons.

We offer complementary wall and skirting tiles to create a cohesive, high quality architectural finish that is both durable and offers a consistent user experience.

Tennancies - most transport projects utilise their spaces to provide outlets that enhance the travel experience. Quick service food has for decades relied on the performance and reliability of Metz porcelain tiles for their kitchens and customer service and dining areas.

Staff areas - these utilitarian spaces require the safety of Metz Sicura and Sicodur® tiles for safe movement of goods and personnel without the glamour. Clean facilities, safe floors and durable finishes that are great value are just the ticket.



Tactile Ground Surface Indicators (TGSIs)

Metz TGSIs are custom-made to the highest slip resistance criteria, achieving ratings far superior to any other ceramic tactile available in Australia. Metz TGSIs achieve a rating of P5 after 5000 cycles of Accelerated Wear Testing (AWT).*

Many operators have experienced liability issues from slippery tactile indicators.

Metz TGSIs are formulated with three essential slip resistance characteristics:

1. Abrasive media throughout the tile body mass
2. Textured surface on the raised indicators
3. Slip resistant finish on the whole tile (not just on the projections).

Metz TGSIs feature:

- Full compliance with AS:1428.4.1
- Lasting slip resistance
- Hazard and directional versions
- Quality European porcelain.



* Accelerated Wear Testing (AWT) is not possible on the raised profile of TGSi tiles due to the limited surface area. Metz has produced and tested the same product in a flat version, which achieved a slip rating of P5 after 5000 scrub cycles.



Como Railway Station, NSW
Architect: DesignInc
Builder: Degnan Construction

Facade & Awning Solutions

By combining performance, functionality and aesthetics, Metz facade systems meet the unique demands of transport infrastructure projects. We are committed to providing durable, low-maintenance, and sustainable solutions that keep transport hubs functioning smoothly while contributing to a greener future.

Our facade products are:

- Resistant to wear and tear, harsh weather conditions, and potential vandalism, ensuring the building envelope's integrity for the life of the premises
- Non-combustible
- Low maintenance, designed to require minimal downtime for maintenance
- Low carbon
- EPD certified



Como Railway Station, NSW
Architect: DesignInc
Builder: Degnan Construction

Onyx Solar Building Integrated Photovoltaics

Onyx Solar is the world's leading manufacturer of transparent photovoltaic (PV) glass for buildings.

Building Integrated Photovoltaics (BiPV) can be seamlessly integrated into transport infrastructure projects, capturing sunlight and turning it into electricity. Onyx PV glass can be installed to replace conventional glass on building facades, curtain walls, atriums, canopies and terrace floors, among other architectural applications.

By providing the same thermal insulation as conventional glass, along with the capacity to generate free and clean electricity from the sun, it enables buildings to drastically improve their energy efficiency, decrease operational and maintenance costs, and reduce their carbon footprint.

Onyx Solar's PV glass offers a transformative approach to transport infrastructure, promoting sustainability and renewable energy.



Presto Ceramic Facade Systems

Metz Presto is a ventilated facade system comprising of ceramic panels. Presto panels are designed to be installed on horizontal profiles (G-Channel) via a feature groove formed on the back of the panel during the manufacturing (extrusion) process.

Benefits:

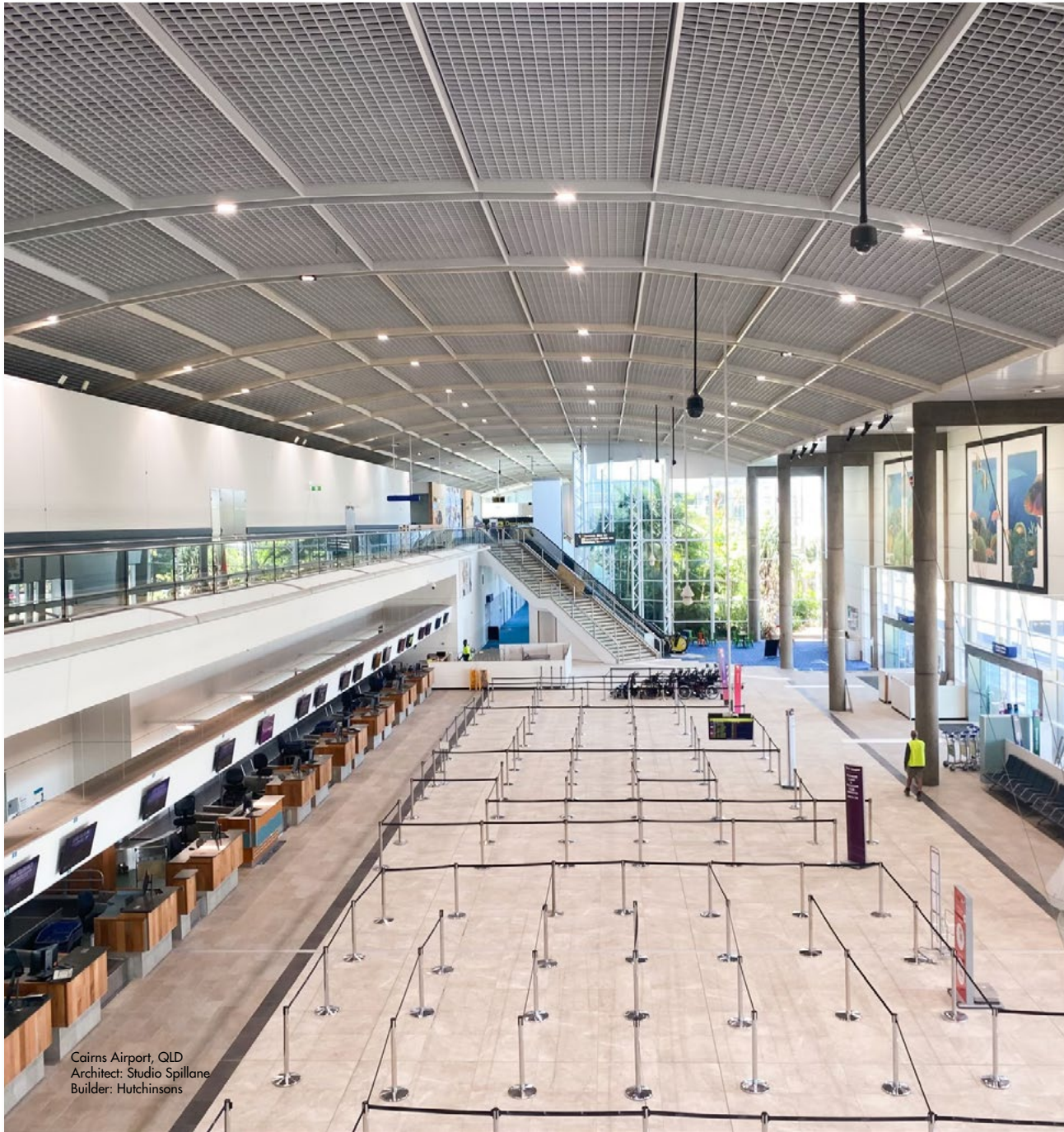
- Highly durable and weather-resistant, ideal for demanding environments encountered in transport infrastructure.
- Simple installation - Presto panels
- Design versatility - Presto is available in a wide range of colours, finishes, shapes and sizes
- Presto's Active Plus photocatalytic coating has self-cleaning and antibacterial characteristics which reduce maintenance requirements. Active Plus also contributes to air pollution reduction, improving overall air quality



BB fiberbeton Glassfibre Reinforced Concrete

Glassfibre Reinforced Concrete (GRC) offers significant advantages for enhancing the design, longevity, and environmental impact of transport infrastructure projects:

- GRC boasts a lifespan exceeding 100 years, minimising maintenance needs and reducing life-cycle costs for infrastructure like bridges, tunnels, and stations.
- GRC utilises eco-friendly production methods with minimal energy consumption and excludes harmful materials, aligning with sustainable infrastructure goals.
- GRC's superior compressive, tensile, and flexural strengths allow for bold and innovative designs in transportation elements.
- Unlike traditional concrete, GRC's formability enables the creation of complex shapes, ideal for bridges, artistic elements in stations, or unique bus stops.
- Partnering with BB fiberbeton (BBf), a leading GRC manufacturer and a certified member of the GRC association (GRCA), ensures consistent design and manufacturing of high-performance GRC products for transport infrastructure projects.




Cairns Airport, QLD
Architect: Studio Spillane
Builder: Hutchinsons

 METZ®

 QUALITY EUROPEAN TILES

 1300 730 062

 metz.au

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Minimum quantities may apply for other than the items shown
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