



Raised Access Floors
North America

Airports Raised Floors

Future-Proof Floor Based Solutions

Tate[®]

Addressing the Wants and Needs of Airports



Airports today are much more than a gate to catch a plane. They are destinations where upon arrival visitors are expecting to be greeted with a wide range of amenities.

Shopping, restaurants, professional services, lounges and other amenities combine to improve the traveling experience and generate additional revenue for the airport.



Future-Proofing the Airport

Reducing time in ticketing, baggage drop-off, security check-points and customs gives travelers more time to enjoy the amenities of the airport.

Raised floors provide flexibility and adaptability so the airport can evolve with the changing needs of each area by:

- Allowing point-of-service terminals and kiosks to be added or moved anywhere on the floor-plate without core drilling or trenching the building slab.
- Accommodating ever-changing security requirements with accessible panels that allow data and power terminations to align with the current equipment design.
- Providing a pathway for any electrical, plumbing and mechanical distribution requirements of food, beverage, retail and other terminal facilities.

Floor Systems for Modern Design

To accommodate changing technology and provide abundant connectivity to travelers throughout the airport, a combination of several different raised floor systems may be required.

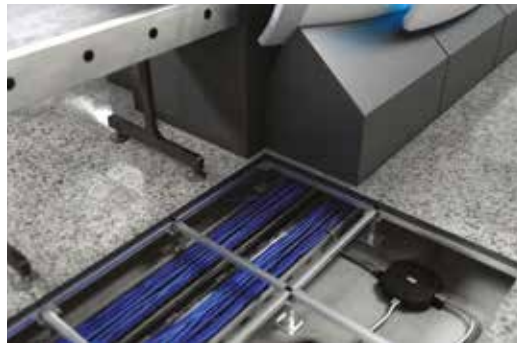
Tate's range of interchangeable flooring solutions can accommodate the different weight and accessibility requirements found throughout the airport.

These floors also offer a variety of high-end, cost-effective factory finish options, or they can be provided without a finish so that anything from carpet to poured terrazzo can be field applied without the need for leveling compounds, saving cost.

Security Check Points



Nowhere in the airport is flexibility more important than in the check-point area. Ever-changing demands caused by new technology, processing methods and security protocols require the ultimate in flexibility.



Security Equipment Demands

Security equipment is connected through the floor below. The wide-open interstitial space between the slab and the raised floor provides adequate room for any data and power density requirements.



Complete Flexibility

Flexibility and relocation can be made quickly and easily with a fully accessible raised floor. Many moves can be accomplished by simply swapping panels, thereby eliminating downtime concerns and service disruptions with moves that save time and cost.



Easy Access

Using an access floor with a pre-finished surface is ideal for areas that demand flexibility. These panels allow quick access to the service pathway by removing the panel and the finish together. The available edge profiles are designed to maintain the beauty of the integrated finish during frequent reconfigurations.



Ticketing and Check-In





No other area has seen a higher deployment of new technology in recent years than the check-in. Core drilling, trench duct and other limited-range solutions are being used to capacity. Using raised floors can offer more service placement freedom for current and future technologies.



Kiosk Flexibility

Kiosks can be installed at any location on the floor and connected from below, allowing for precise and limitless placement. The raised floor can be core drilled at the desired location, eliminating any degradation to the structural integrity of the building.



The Right Level of Accessibility

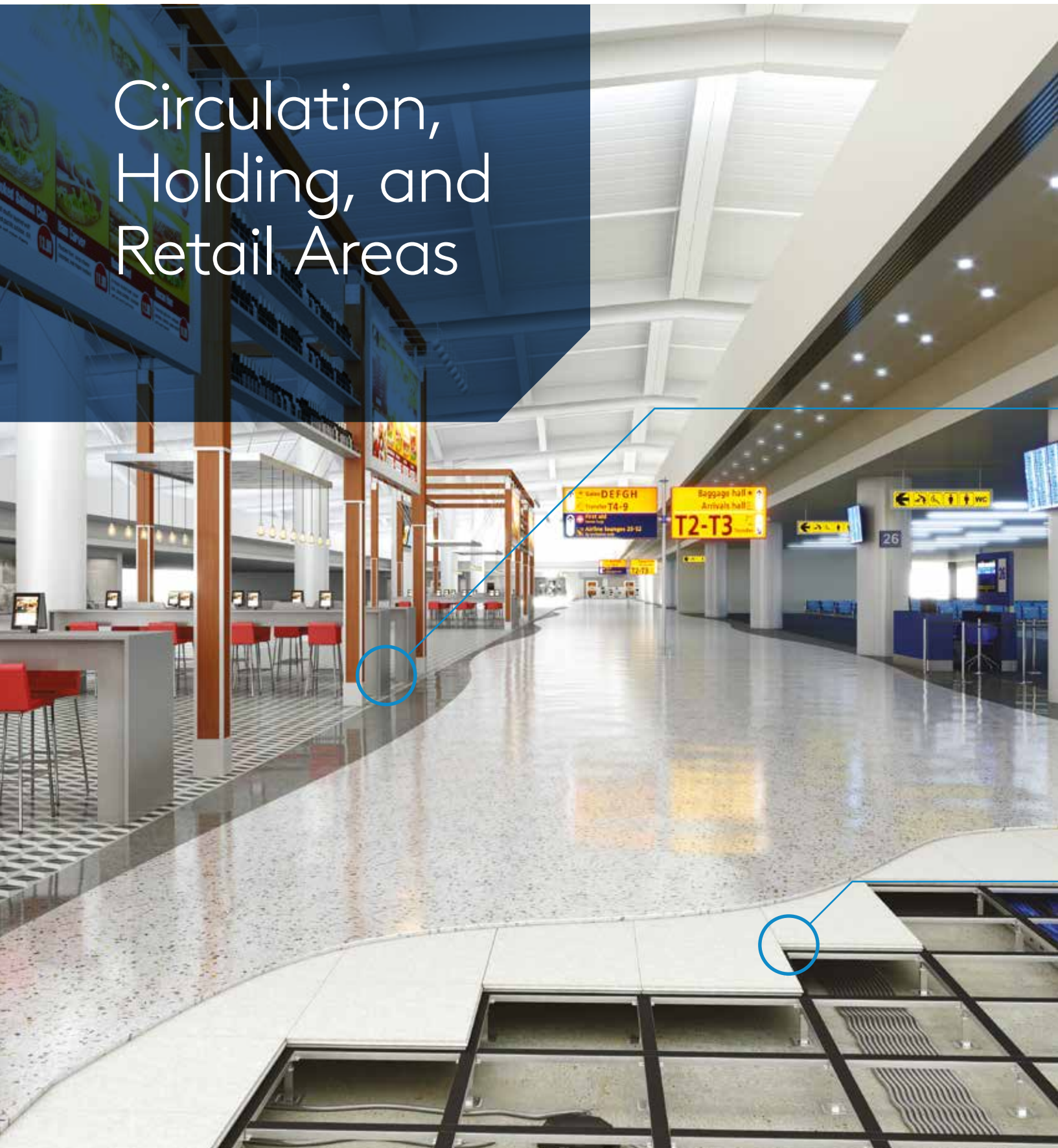
With a wide range of load performance and finish options Tate's raised floors offer an excellent solution for check-in. Whether you want a limited-access service pathway or a fully accessible floor, Tate can meet your service and design goals.



Hatch Panel

Hatch panels offer access to critical services for fishing data and power cables to their desired location under a limited-access floor. Hatch panels would be strategically placed throughout the area to limit tampering.

Circulation, Holding, and Retail Areas



Natural light, pleasing aesthetics and connectivity for travelers define the concourse. The power and data demand of travelers, as well as the connectivity for ordering food and beverage, make raised floors an ideal solution for adding service location flexibility.

A finish-ready floor allows the airport design to use the full range of finishes and transitions typically found in these areas.



Food and Beverage Requirements

Technology is growing in airport cafés. The use of self-order and self-service continues to grow, increasing the demands for power and internet connectivity. Raised floors offer the elegant answer to supplying power directly to café tables and small ordering stations.



Open Service Plenum

Nothing improves the traveler experience better than access to power. With the open pathway below the floor, every chair can easily be powered. Likewise, the data connections for arrival / departure screens and gate counters are easily distributed underneath the floor.



Field-Applied Finishes

The finish-ready raised floor offers the ultimate substrate for circulation areas where you may need a field-applied finish. A perfectly level solution that can reduce screed costs, speed construction and enable the execution of complex transitions.



Raised Floor Solutions



Tate's range of floor panels and high-end architectural finishes create the ultimate service distribution system for airports and infrastructure.

Working together, the different systems can be applied side-by-side to meet the specific service distribution and design needs to create a beautiful and flexible space that captures your project's aesthetic vision.

Access Floor Panel

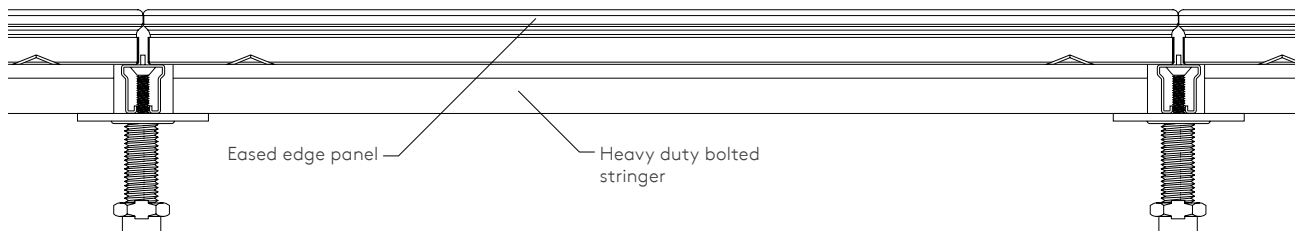
Fully Accessible and Adaptable



An access floor with a pre-finished surface is ideal for areas where you need to be adaptable. The eased edge profile is designed to maintain the beauty of the integrated finish during frequent removal and reconfigurations.

Key Performance Characteristics

- Each panel is individually accessible
- Available with any STONEWORKS® finish
- Available with design loads of 1250 lbs or 2500 lbs
- Three understructure options available
- Panels have a finish with eased edge profile



System Performance Criteria* (tested on actual understructure)

System Type			Static Loads			Rolling Loads		
STONEWORKS® Panel	Understructure	System Weight	Design Loads ¹	Minimum Ultimate Loads	Safety Factor ²	10 Passes	10,000 Passes	Impact Loads
Eased Edge	Free Standing	14.75 lbs/ft ²	1250 lbs	1800 lbs	1.44	1000 lbs	800 lbs	100 lbs
Eased Edge & Edge Banded	Heavy-duty Bolted Stringer	15.50 lbs/ft ²	1250 lbs	1800 lbs	1.44	1000 lbs	800 lbs	100 lbs
Eased Edge & Edge Banded	Box Beam Stringer	16.50 lbs/ft ²	2500 lbs	3750 lbs	1.50	2000 lbs	2000 lbs	200 lbs

* All tests are performed using the CISC Recommended Test Procedures for Access Floors with the exception of Design Load.

1. System Design Load is based on permanent set $\leq 0.010"$ and is verified by loading panels in accordance with the CISC concentrated load method but with panels installed on actual understructure instead of steel blocks. (Testing on blocks does not represent performance of an actual installation.) Ultimate, Rolling, and Impact Load tests are performed using CISC Test Procedures.

2. Safety Factor is Ultimate Load divided by Design Load.

Pre-Finished Cavity Floor

Limited Access Pathway with Hatch Panels



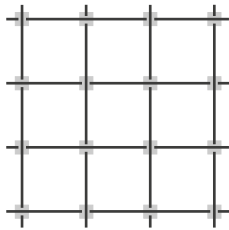
A pre-finished cavity floor is an excellent solution for areas where changes occur less frequently. The tongue and groove design maintains security from travelers, while factory-supplied hatch panels enable easy access. The pre-finished surface offers a quick and cost-effective solution with many traditional aesthetics.

Key Performance Characteristics

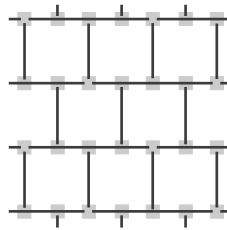
- Tongue and groove system
- Available with any STONEWORKS® finish
- 60 cm module size
- Available in two grid designs on or offset grid
- Options with or without 1/8" grouted joints
- Available with 1250 lbs or 2500 lbs design load
- Field-applied noise dampening acoustic gasket

Panel Seam Options for a Range of Different Aesthetics

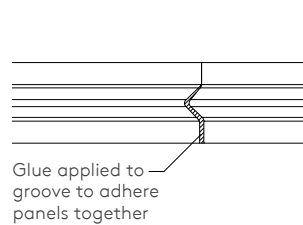
Standard on-grid layout



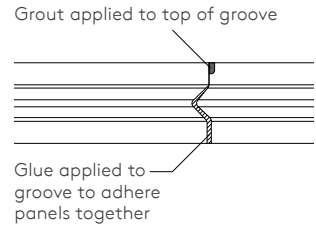
Offset grid layout



Standard grid detail



Grouted grid detail
Grout applied to top of groove



System Performance Criteria

System Type			Static Loads			Rolling Loads		
Panel	Understructure	System Weight	Design Loads ¹	Ultimate Loads	Safety Factor ²	10 Passes	10,000 Passes	Impact Loads
Pre-finished cavity floor tongue & groove panel	2" Wide x 1" Deep Bolted Stringer	15.50 lbs/ft ²	1250 lbs	1800 lbs	1.44	1000 lbs	800 lbs	100 lbs
	2" Wide x 2" Deep Bolted Stringer	16.00 lbs/ft ²	2500 lbs	3750 lbs	1.50	2000 lbs	2000 lbs	200 lbs

1. All load tests are performed using the CISC Recommended Test Procedures for Access Floors with the exception of Design Load. Design Load capacities are verified using the CISC Concentrated Load procedure (with loads applied through a 1" dia. indenter at the weakest point) but with the panels supported by actual understructure rather than steel blocks (tests on panels supported by blocks are not representative of panel or system performance in actual installations).

2. Safety Factor is Ultimate Load divided by Design Load.

Finish-Ready Cavity Floor

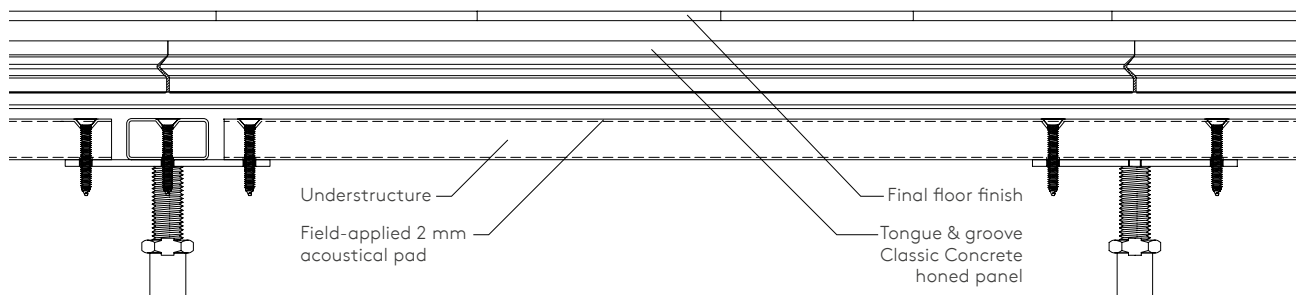
Limited Access Pathway for Building Integrity



The finish-ready tongue and groove cavity floor offers the ultimate substrate for field-applied finishes. This perfectly level solution can reduce screed costs, speed construction and enable for execution of complex transitions. Underfloor pathway provides easier access to service without core-drilling or trenching.

Key Performance Characteristics

- Tongue and groove system
- Flat surface for field-applied finish
- 60 cm module size
- Available with 1250 lbs or 2500 lbs design load
- Field-applied noise dampening acoustic gasket



System Performance Criteria

System Type			Static Loads			Rolling Loads		
Panel	Understructure	System Weight	Design Loads ¹	Ultimate Loads	Safety Factor ²	10 Passes	10,000 Passes	Impact Loads
Tongue & Groove Classic Concrete Honed Panel	2" Wide x 1" Deep Bolted Stringer	15.50 lbs/ft ²	1250 lbs	1800 lbs	1.44	1000 lbs	800 lbs	100 lbs
	2" Wide x 2" Deep Bolted Stringer	16.00 lbs/ft ²	2500 lbs	3750 lbs	1.50	2000 lbs	2000 lbs	200 lbs

1. All load tests are performed using the CISC Recommended Test Procedures for Access Floors with the exception of Design Load. Design Load capacities are verified using the CISC Concentrated Load procedure (with loads applied through a 1" dia. indenter at the weakest point) but with the panels supported by actual understructure rather than steel blocks (tests on panels supported by blocks are not representative of panel or system performance in actual installations).

2. Safety Factor is Ultimate Load divided by Design Load.



STONEWORKS® Architectural Finishes

Tate's STONEWORKS® line of raised access floor and cavity floor panels combines aesthetic and engineered structural components into one complete integrated product. With an array of finish and color options, compromising design for flexibility will never be an architectural obstacle again.

The STONEWORKS® line includes Classic Concrete and Decorative Concrete. The strength and utility of an integrated panel means these finishes can be used to enhance the design aesthetic of a wide variety of applications.

The bottom of STONEWORKS® panels are laminated with an E-Coated steel pan for stability, and the panels are supported by a range of understructure.

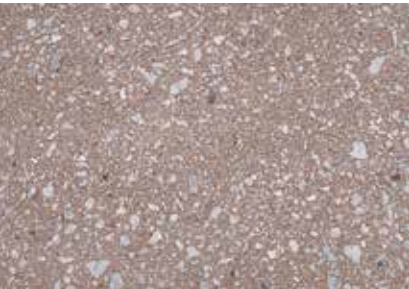


STONWORKS® Finish Options

Classic Concrete



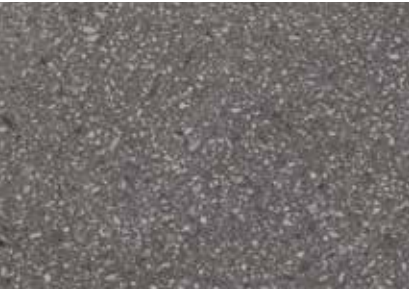
Decorative Concrete



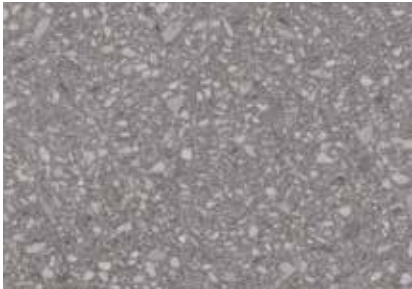
Camel



Hay



Midnight



Lime

Contact Details

Corporate Headquarters:

7510 Montevideo Road,
Jessup, MD 20794

Tate Hotline: 1-800-231-7788

T: +1 410 799 4200

F: +1 410 799 4207

Asia Sales & Support Office:

1 Commonwealth
#07-26 One Commonwealth,
SINGAPORE 149544

T: +65 6264 5942

Production Facilities:

7510 Montevideo Road,
Jessup, MD 20794

52 Springvale Road,
Red Lion, PA 17356

T: +1 717 244 4071

F: +1 717 246 3437

Australian Sales & Support Office:

3 Herbert Place, Smithfield NSW 2164,
Sydney Australia

T: +61 2 9612 2300

F: +61 2 9612 2301

Canadian Sales & Support Office:

880 Equestrian Court, Oakville,
ON L6L 6L7 Canada

Tate Hotline: 1-800-231-7788

T: +1 905 847 0138

F: +1 905 847 0141

European Sales & Support:

B16 Ballymount Corporate Park,
Ballymount Avenue,
Ballymount, Dublin 16, Ireland

T: +353 (1) 685 6518

Central and South American Sales & Support:

T: +1 954 412 2334

Middle East Sales & Support:

Jebel Ali-Lahbab Road (E 77 Road),
Dubai Investment Park,
United Arab Emirates

T: +971 56 199 8368

A Kingspan Group
Company



Tate components
are proudly made
in the U.S.A.

For the product offering in other markets please contact your local sales representative or visit www.tateinc.com

Care has been taken to ensure that the contents of this publication are accurate, but Kingspan Limited and its subsidiary companies do not accept responsibility for errors or for information that is found to be misleading. Suggestions for, or description of, the end use or application of products or methods of working are for information only and Kingspan Limited and its subsidiaries accept no liability in respect thereof.

Tate®