



Tactile Ground Surface Indicators





Building Safer Environments For All Australians

ESP was created to fill a void in the building industry. A void that existed from an industry belief that a cheaper price was the goal.

A belief that a cheaper price was a higher priority than long term safety to a product user.

A belief that a cheaper price was of more value than service and expertise.

A belief that it was easier to sell a cheap, poor quality product more often than it was to sell a high quality, service based, long-term solution.

We fill that void, we are The Solution.

PRODUCTS BUILT TO LAST

AS/NZS1428.4.1:2009 Compliant



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About Us

One Team, One Goal - Be The Solution

ESP Australia is a company of trained, professional, and passionate individuals who genuinely care about providing the right solution for each application.

Our industry leading range of Tactile Ground Surface Indicators and Stair Nosing is the result of extensive design and testing, premium compounds and materials, real construction 'know-how', and an unwavering commitment to excellence.

From quotation to installation, ESP works together with you every step of the way.



OUR JOURNEY



Watch our corporate video online. Go to espaust.net.au

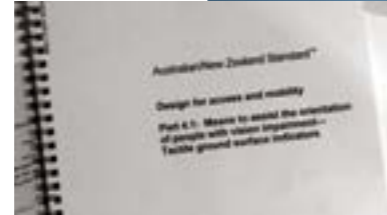
Our Services

At ESP we strive to offer long-term solutions, which is why we offer a superior product and a broad range of services to meet and exceed your needs.

Whether you need assistance with drawings and specifications, estimating, sales & distribution, installation advice, luminance contrast testing or selecting the correct product to meet compliance requirements, we're here to help!

With immediate service and access to personal sales attention with local representatives, your experience with ESP will be superior in every aspect.

- National Sales & Distribution
- Professional Installation Service
- Free Quotes & Estimation
- Assistance with Standards Compliance
- Assistance with Drawings + Specifications
- Application & Installation Service
- Luminance Contrast Testing



BE THE SOLUTION

Contact Us Today
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Overview

What are Tactile Ground Surface Indicators?

Tactile Ground Surface Indicators (TGSIs) are truncated domes and / or bars installed on the ground or floor surface to provide cues, which, when combined with other environmental information, guide and assist people who are blind or vision impaired with warning or directional orientation information.

According to the Australian & New Zealand Standard AS/NZS1428.4.1:2009 Design for Access & Mobility Part 4.1 – (Means To Assist The Orientation Of People With Vision Impairment) - TGSIs should be used as a 'minimum' in the following situations:

- Stairs & Stair Landings
- Escalators & Travellators
- Pedestrian Ramps & Crossings
- Overhead Hazards
- Carriageways without kerbs
- Railway, Tramway and light rail pedestrian
- Waterbodies (Wharves, lakes and ponds accessible by pedestrians)
- Bus Stops



UNDERSTANDING TGSIS

Warning TGSIs



Also known as 'Hazard' Tactile Ground Surface Indicators, are truncated domes designed to warn a pedestrian of a hazard ahead, such as:

- At a kerb ramp to warn where the footpath ends and the road crossing point begins.
- At a ramp or ramp landing to warn of the change in grade.
- At steps, stairs, escalators and at a change in direction on the footpath which includes directional Tactile Ground Surface Indicators.

Directional TGSIs



A series of raised bars aligned to advise pedestrians of the direction of travel to a facility or point of service.

They are installed either:

- With a single row of tiles (i.e 300mm wide) in the direction of travel between a "change of direction" plate and the top of a kerb ramp leading to a crossing point at an intersection or traffic island.
- With 2 rows of tiles (i.e 600mm wide) across a continuing footway to alert people following the building line of a change of direction to a pedestrian crossing point, bus stop or tram / rail stop.

Note* The width of the TGSIs ensures that the indicators will be detected as the typical width of a person's step is generally less than 600mm.

 Discover more at espaust.net.au

SURFACE APPLIED



Fast, Efficient & Cost-effective

ESP's Surface Applied Access® Tile can be mechanically and chemically secured to any stable surface. They are fast to install, simple to retrofit and withstand the toughest pedestrian use.

Produced with our unique 'Herculite' material, we construct every ESP Access® Tile using the highest quality components and with additional UV stabilisers for the harsh Australian sun.

This ensures that the Access® Tile will maintain its individual Luminance Reflectance Values over the long term.

Key Product Features

- Installs in minutes to any finished stable substrate
- Immediately trafficable — No curing time
- Unique fibre-reinforced 'Herculite' formula ensures strength, durability & maintains Luminance Reflective Value
- Fully compliant & rigorously tested to meet and exceed all AS/NZS1428.4.1:2009 requirements

Installation Guide
Go to espaust.net.au/installation-guides



SURFACE APPLIED

Warning - Specification

- Fully Compliant - AS/NZS1428.4.1:2009
- Easy to install & simple to retrofit
- Long-lasting - maintains colour over the long-term

Product Code

ESP-SA-WAR-600x300
ESP-SA-WAR-1200x600

Type

Warning / Hazard (Truncated Domes)

Configuration

Integrated Tile - Tactile Ground Surface Indicators that are in a defined pattern, and which are of the same luminance and material as the products base surface.

Surface Application

Each ESP Warning / Hazard Access® Tile is applied to finished substrate (or existing finished surface substrate) that possesses suitable and stable structural integrity.

Luminance Contrast Rating

BLACK	>	Dry = 3.1	Wet = 2.5
YELLOW	>	Dry = 55.3	Wet = 54.2
WHITE	>	Dry = 73.5	Wet = 72.5

Slip Resistance Classifications

AS4586:2013 A - (Slider 96) - Result: 71 Class: P5
AS4586:2013 A - (Slider 55) - Result: 65 Class: P5
AS4586:2013 C - Result:29° Class: C
AS4586:2013 D - (Amdt 1:2017) - Result: 24° Class: R11

Available Product Colours



White

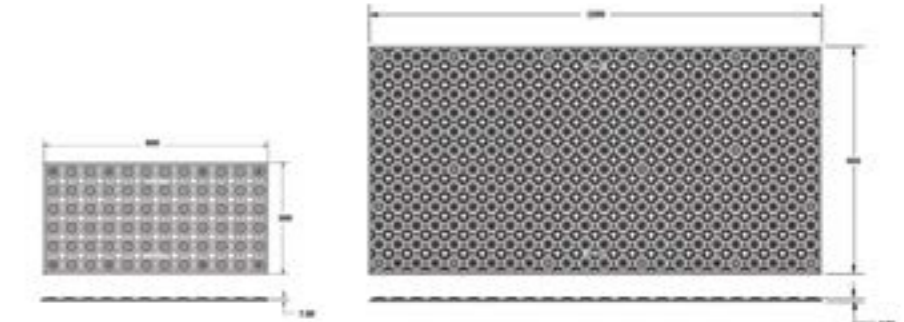
Yellow

Black

Product Sizes

600 x 300mm
1200 x 600mm

Dimensional Drawings



Note* All dimensions are in millimetres and are not to scale

Installation Guide

Go to espaust.net.au/installation-guides



SURFACE APPLIED

Directional — Specification

- Fully Compliant - AS/NZS1428.4.1:2009
- Easy to install & simple to retrofit
- Long-lasting - Maintains colour over the long-term

Product Code

ESP-SA-DIR-600x300

Type

Directional (Truncated Bars)

Configuration

Integrated Tile - Tactile Ground Surface Indicators that are in a defined pattern and which are of the same luminance and material as the products base surface.

Surface Application

Each ESP Directional Access® Tile is applied to finished substrate (or existing finished surface substrate) that possesses suitable and stable structural integrity.

Luminance Contrast Rating

BLACK	>	Dry = 5.2	Wet = 3.5
YELLOW	>	Dry = 57.2	Wet = 54.3
WHITE	>	Dry = 74.6	Wet = 73.7

Slip Resistance Classifications

AS4586:2013 A - (Slider 96) - Result: 54 Class: P4
AS4586:2013 A - (Slider 55) - Result: 41 Class: P4
AS4586:2013 C - Result:16° - Class: A
AS4586:2013 D - (Amdt 1:2017) - Result: 22 Class: R11

Available Product Colours



White

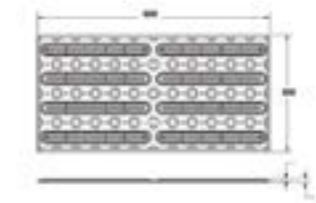
Yellow

Black

Product Sizes

600 x 300mm

Dimensional Drawings



Note* All dimensions are in millimetres and are not to scale



Surface Applied TGSI Installation guide

A step by step guide detailing how to install ESP's Surface Applied Access® Tile

Please Note* These images are for illustrative purposes only. It is the installers responsibility to ensure that the correct Personal Protective Equipment (PPE) is worn and that the necessary precautions are taken to meet all safety requirements.

All Tactile Ground Surface Indicators must be installed as per AS/NZS1428.4.1:2009.

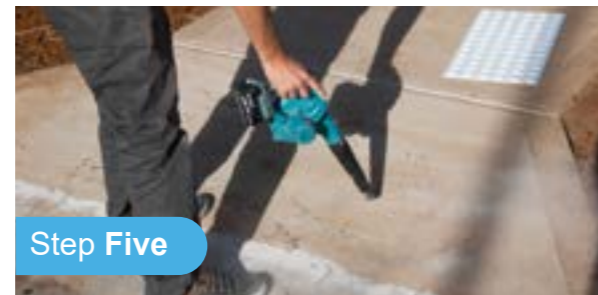
Different substrates may require a variation in installation methods.

Place the tile & trace the perimeter



Place the tiles or template on the curb ramp / footpath and measure out as per AS/NZS1428.4.1:2009. Now trace the perimeter with a marker.

Clear debris and clean the tile



Clear away the dust with a vacuum, broom or brush. Clearing all the dust will ensure the tile adheres firmly to the substrate.



Drill fixing holes



Using a template or as marked, drill fixing holes down 50mm with a hammer drill & 6mm masonry drill bit.

Apply adhesive (Sikaflex Recommended)



Apply adhesive (ESP recommend using Sikaflex 11-FC Polyurethane adhesive) to the back of the tile. It should be applied 25mm from the perimeter edge and to the 3 middle bars.

Insert fixing plugs



Insert supplied fixing plugs into the drilled holes and tap down flush to concrete surface using a rubber mallet.

Position & place ESP Access Tile



Position the tile on to the curb ramp / footpath as per the marked lines and holes and press down firmly.

Lightly scour concrete section (If required)



If required, set the tiles aside & using a 100mm diamond cup grinder, lightly scour the concrete within the marked location & in correspondance with the location requiring adhesive as indicated on the underside of the tile.

Fix tile to substrate used supplied fixings



Insert the supplied stainless steel screws through the tile into the plugs & torque down in a cross pattern using a cordless drill until secure making sure the tile is even & square.

 Watch the video [Go to \[espaust.net.au/installation-guides\]\(https://espaust.net.au/installation-guides\)](https://espaust.net.au/installation-guides)



CAST IN PLACE

The Ultimate in Tactile Design

ESP's Cast In Place Access® Tile is applied during the curing of wet concrete. When the concrete becomes cured, the ESP Access® Tile is mechanically fixed to the finished substrate and is trafficable once the concrete has cured.

Corrosion resistant, nylon composite hexagonal anchors and counter sunk tamper proof 304 stainless steel fasteners, provide an additional mechanical connection between the ESP Cast In Place tile and the substrate.

With CSIRO testing in Australia, 24 international engineering tests, and over 20 years of application experience throughout the world, ESP's Cast In Place Access® Tile are the most robust, durable and functional Tactile Ground Surface Indicators for pedestrian streetscapes.

Key Product Features

- Installs in minutes during the concrete finishing stage
- Corrosion resistant hexagonal anchors designed to entrap concrete for optimal anchoring
- The replaceability feature of the tile is industry leading due to it's simplicity and speed
- Fully compliant & rigorously tested to meet and exceed all AS/NZS1428.4.1:2009 requirements

Installation Guide

Go to espaust.net.au/installation-guides



CAST IN PLACE

Warning - Specification

- Fully Compliant - AS/NZS1428.4.1:2009
- Installs in minutes during the concrete finishing stage
- Long-lasting - Maintains colour over the long-term

Product Code

ESP-CIP-WAR-600x300
ESP-CIP-WAR-1200x600

Type

Warning / Hazard (Truncated Domes)

Configuration

Integrated Tile - Tactile Ground Surface Indicators that are in a defined pattern, and which are of the same luminance and material as the products base surface.

Surface Application

Each ESP CIP Warning / Hazard Access® Tile is designed to be applied to the un-set or un-cured substrate or surface; predominantly concrete. Additionally, this tile is suitable for Exposed Aggregate, Asphalt, Timber & WPC Decking.

Luminance Contrast Rating

BLACK	>	Dry = 3.1	Wet = 2.5
YELLOW	>	Dry = 55.3	Wet = 54.2
WHITE	>	Dry = 73.5	Wet = 72.5

Slip Resistance Classifications

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AS4586:2013 A - (Slider 55) - Result: 65 Result P5
AS4586:2013 C - Result: 29° Class: C
AS4586:2013 D - (Amdt 1:2017) - Result: 24° Class: R11

Available Product Colours



White

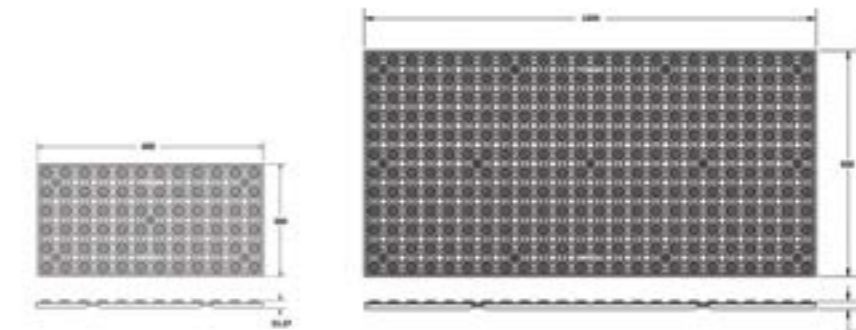
Yellow

Black

Product Sizes

600 x 300mm
1200 x 600mm

Dimensional Drawings



Note* All dimensions are in millimetres and are not to scale



CAST IN PLACE

Installation Guide
Go to espaust.net.au/installation-guides



Directional — Specification

- Fully Compliant- AS/NZS1428.4.1:2009
- Installs in minutes during the concrete finishing stage
- Long-lasting - Maintains colour over the long-term

Product Code
ESP-CIP-DIR-600x300

Type
Directional (Truncated Bars)

Configuration
Integrated Tile - Tactile Ground Surface Indicators that are in a defined pattern and which are of the same luminance and material as the products base surface.

Surface Application
Each ESP CIP Directional Access® Tile is designed to be applied to the un-set or un-cured substrate or surface; predominantly concrete. Additionally, this tile is suitable for Exposed Aggregate, Asphalt, Timber & WPC Decking.

Luminance Contrast Rating

BLACK	>	Dry = 5.2	Wet = 3.5
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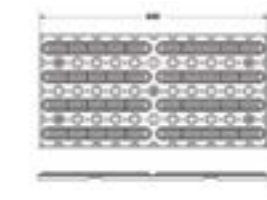
Available Product Colours



White Yellow Black

Product Sizes
600 x 300mm

Dimensional Drawings



Note* All dimensions are in millimetres and are not to scale

Cast In Place TGSI Installation guide

A step by step guide outlining how to install ESP's Cast In Place Access® Tile

Please Note* These images are for illustrative purposes only. It is the installers responsibility to ensure that the correct Personal Protective Equipment (PPE) is worn and that the necessary precautions are taken to meet all safety requirements.

All Tactile Ground Surface Indicators must be installed as per AS/NZS1428.4.1:2009.

Different substrates may require a variation in installation methods.

Begin pouring the concrete



Step One

Concrete should be placed within a 60–80 slump.

Find the centre point of new ramp



Step Two

Using a string line measure, find and mark the centre point of the new concrete ramp.

Measurements as per AS/NZS1428.4.1:2009



Step Three

The ESP Access® Tile should be positioned ensuring compliance with AS/NZS1428.4.1:2009.

Place the tile gently in wet concrete



Step Four

While the concrete is still soft, the tile can be placed gently into its proper position.

Use rubber mallet to tap the tile in place



Step Five

Using a rubber mallet, begin to tap the tile into the concrete starting at the top & working your way to the bottom. Ensure that you continue vibrating the tile with the rubber mallet until the tile is flush & even with the surrounding concrete

Use a weight to hold the tiles in place



Step Six

Weight should be placed on the top of the tile to hold it in place until the concrete has been set.

Create edge around the perimeter of the tile



Step Seven

Create an edge around the perimeter of the tile using an edging tool. In addition, a mag float is also used to ensure that the tiles are flush with the height of the concrete to eliminate any tripping points.

Install traditional control joints



Step Eight

Traditional control joints should be installed. Finally, retrace your edges and joints. Once the concrete has set, remove the weights and surrounding safety equipment to clean the finished product.



FREE QUOTE

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LUMINANCE CONTRAST

Understanding LRV Testing

Luminance Reflectance Value (LRV) is a measurement of the amount of light reflected from a surface. To comply with Australian Standards, TGSI Installations must achieve a minimum Luminance Reflectance Contrast between the TGSI and the surrounding substrate.

LRV testing measures the Luminance Reflectance Value (LRV) of both the TGSI and the surrounding substrate and compares the two values using the formula specified in AS/NZS 1428.4.1:2009 to determine whether there is sufficient Luminance Contrast. Tests need to be conducted in both dry and wet conditions to achieve compliance.

Our Service Offering

ESP can provide Luminance Contrast Testing on our TGSI or Stair Nosing installations to determine compliance with AS/NZS1428.4.1:2009. Tests are conducted with all results independently reviewed and verified prior to issuing certification.

Tactile Ground Surface Indicators must achieve the following Luminance Reflectance Contrasts:

- **30%** — Integrated Tactile Ground Surface Indicators (ESP Access® Tile)
- **45%** — Discreet Tactile Ground Surface Indicators
- **60%** — Composite Discreet Tactile Ground Surface Indicators

