

# TCSI

TACTILE GROUND SURFACE INDICATORS

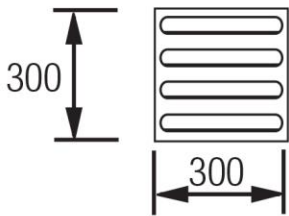


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Design in Concrete

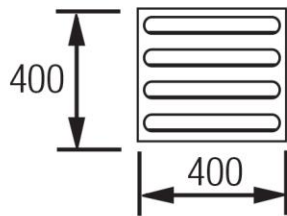




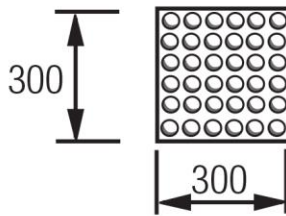
### Technical Drawings



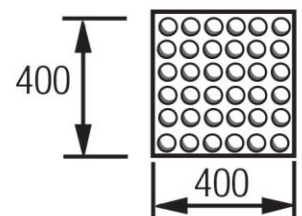
Size : 300 x 300 x 40mm  
300 x 300 x 60mm



Size : 400 x 400 x 40mm  
400 x 400 x 80mm



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300 x 300 x 60mm



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400 x 400 x 80mm

<b>Mix Design</b>	Wet Cast technically advanced high strength concrete mix
<b>Dimensional Accuracy</b>	All dimensions accurate +/- 3mm as tested to AS/NZS 4455 1997
<b>Salt Safe</b>	Yes, as tested to AS/NZS 4465.10 1997
<b>Strength / Durability</b>	High density mix design , as tested to AS/NZS 4465 4/5 1997
<b>Abrasion / Water</b>	Excellent Abrasion as tested to AS/NZS 4456.9 1997
<b>Slip Resistance</b>	Non slip surface, as tested to AS/NZS 3661.1 1997 "V" rating
<b>Anti-Efflorescence</b>	Anti-Efflorescence incorporated in mix design
<b>Compression Strength</b>	48 mpa





## Tactile Paving

Widely used by local councils & transport bodies, our cautional and directional TGSIs (Tactile Ground Surface Indicators) pavers are robust and hard wearing. Our durable concrete tactiles have a compressive strength of 48 mpa. Made from wet-cast high strength concrete mix, they are salt, water and abrasion safe and non-slip as tested to Australian and New Zealand Standards. Our Voodoo tactiles are the preferred tactile pavers of the Brisbane City Council. We use CCS oxides in all of our tactile pavers as they are UV resistant and of superior quality. Chelmsstone tactile pavers can be manufactured in any CCS colour.



## Luminance Values

Luminance values for hazard indicators must be in accordance with the Australian Standards for access and mobility, AS 1428.4.1 – 2009.

Colour :	Ivory	Snow	Voodoo	Pewter	Yellow	Red	Corn
Luminance : Dry	62	77.1	8	46.8	46	12	33
Luminance : Wet	40.3	50.1	4	33.4	42	7.7	24.5
<b>Specification Codes</b>							
Cautional :	CHELMC34I	CHELMC34S	CHELMC34V	CHELMC34P	CHELMC34Y	CHELMC34R	CHELMC34C
Directional :	CHELMD34I	CHELMD34S	CHELMD34V	CHELMD34P	CHELMD34Y	CHELMD34R	CHELMD34C

## Precast Concrete Tactile Pavers

Precast concrete pavers are generally used outdoors for new projects. If it is likely that vehicular traffic will be in contact with the tactiles, high strength precast concrete pavers are a robust solution.

Chelmstone's precast concrete tactiles are reinforced with Strux 90/40 to reduce cracking under heavy vehicle weights. Architectural preferences and cost will be factors in deciding between precast concrete and stainless steel stud systems. Quality and installation integrity must also be taken into consideration.

## Luminance Requirements

Luminance can be defined as a measure (in candelas per square metre) of the brightness of a point on the surface that is radiating or reflecting light. Sufficient luminance contrast of surfaces can visually warn people of impending hazards such as kerbs, ramps, stairs, bus stops and railway station platform edges. Using colour on or within concrete can greatly assist in improving the luminance factor of these areas, particularly for visually impaired people.

## Fibre Reinforced Paving

Utilising patented Fibre Reinforcing Technology, exclusively supplied to Chelmstone, Fibre Reinforced paving offers increased resistance to failure from impact and overloading. Longer-term performance, with significantly reduced maintenance and reinstatement costs are the immediate benefits of using Chelmstone's fibre reinforced tactile pavers. The long term aesthetic of the paved areas are maintained, with no significant cracking or spalling, even after failure of individual units has actually occurred. Pavement design, construction and installation are exactly the same as for non-reinforced paving units, imposing no additional handling or construction costs. Fibre reinforced paving addresses the failure of non-reinforced units exposed to occasional vehicular overrun.

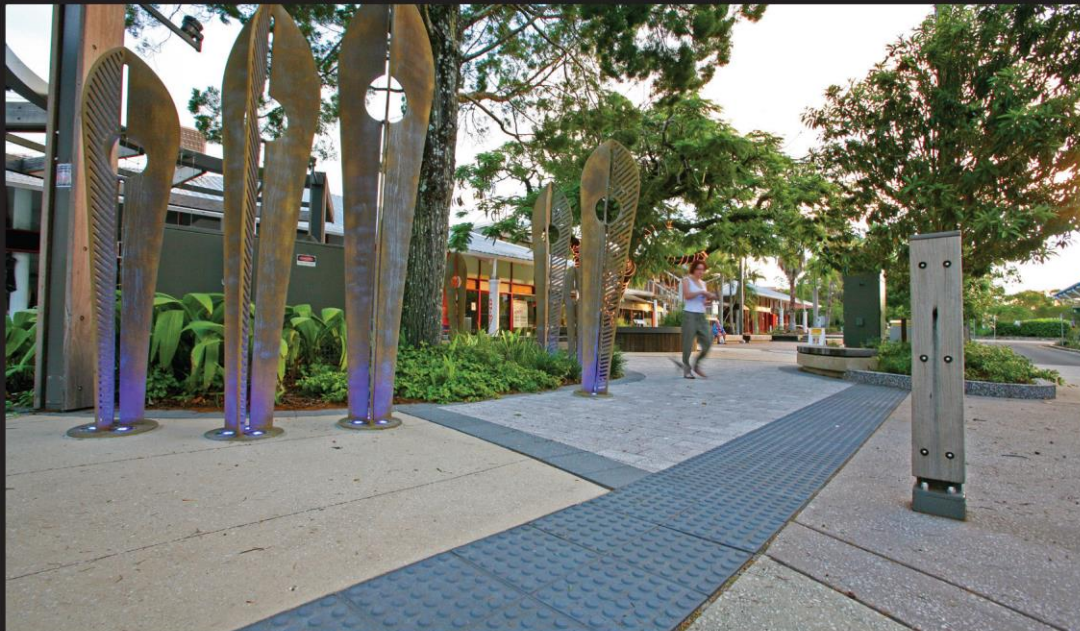
Broken, twisted and uneven pavers that can cause potential danger of trip hazards to pedestrians are dramatically reduced, leading to a safer, more pleasing and fully functional paved area for all users.

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Established nearly 25 years ago in Brisbane Queensland, Chelmstone is renowned for its extensive range of premium quality cast paving. In addition, Chelmstone are leaders in the design and manufacturing of detailed commercial pre-cast concrete products, supplying highly engineered Tactile Paving, Seating, Bollards, Architectural Mouldings, Pier Caps, Wall Capping and Planters. Working in partnership with leading landscape architects, Chelmstone is proud to be part of Australia's most prestigious commercial projects



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