



# GRADUS



2019

## **Gradus Stair Nosing** **Standard and XT : PVC Stair Nosing Anti-Slip Inserts**

*For both Gradus Standard and XT Range exceeds ALL minimum standards wet and dry for specified slip resistance in accordance with ASNZ 4586 Slip Resistance and BIA D1/AS1.*

### **Technical Specification**

**Slip resistance** - Gradus stair nosing inserts are tested for slip resistance in accordance with the current NZ standard ASNZ 4586.

Current test results and interpretation guidelines follow Pages 2 – 6

**Chemical resistance** - BS 2782 Part 8 Method 830A:1986

Gradus 2mm Stair Edging Inserts both standard and XT are designed to provide a slip resistant and colour contrasting edge to step edges.

The insert acts as a slip resistant surface by providing frictional resistance against differing types of footwear sole material, therefore helping to reduce the risk of slip when ascending or descending a stairway. The material used in the production of this insert is a PVC compound with natural minerals as an additive.

Gradus Inserts are also resistant to bacterial and fungal growth and therefore, when properly maintained, will retain their appearance.

Gradus stair nosing insert has been tested to the following:

[help@giltedge.co.nz](mailto:help@giltedge.co.nz) for all enquiries.

[www.giltedge.co.nz](http://www.giltedge.co.nz)



# TECHNICAL DATA SHEET

Customer Services  
CHC : 03 379 7067 or AKL: 09 443 7067  
Email: help@giltedge.co.nz

Technical & Sales Assistance  
Email: sales@giltedge.co.nz  
www.giltedge.co.nz

27 February 2019

## **Gradus Stair Nosings and Stairtile by Gilt Edge Industries: Compliance to AS/NZ 4586 Slip Standard**

### **ALL GRADUS STAIR NOSING PVC ANTI-SLIP INSERTS PASS AND EXCEED THE MINIMUM REQUIREMENTS SET OUT IN AS/NZ 4586 NZ SLIP STANDARD**

#### WHAT ARE THE REQUIREMENTS FOR A SURFACE TO BE SLIP RESISTANT?

The NZ Building Code (1992) gives this instruction on slip resistance:

D1.3.3 Access routes shall:

(d) Have adequate slip-resistant walking surfaces under all conditions of normal use.

#### For surfaces that may become wet (S2.1.2)

The Acceptable Solution to this D1 section (Access Routes) - [D1/AS1](#) lists two methods for complying with the Building Code:

- a) Have an SRV (slip resistance value) classification of not less than 39 from the wet pendulum test method (AS4586, Appendix A)
- b) Use the materials listed in Table 2 as acceptable wet slip

#### For surfaces that may usually remain dry (S2.1.3)

A surface must either be tested to AS4586 Appendix B and pass at more than 0.40 (or a SRV of more than 39) or be selected from Table 2 as acceptable dry slip. In practice almost all floor-coverings provide acceptable dry slip resistance, as listed in the table and **therefore do not require a test under Appendix B.**

#### **For Sloping Surfaces and Stairs (S2.1.5)**

For sloping surfaces, the SRV required will increase from 39, depending on the slope of the surface - Appendix F of AS4586 provides tables for working out how much the requirement increases by.

Alternatively, for both sloping surfaces **and stairs**, Table 2 in the D1/AS1 provides a Yes/No acceptable rating for a limited range of slope (see the notes).

**Finally, and most easily, a P4 rating from the AS4586 wet pendulum test is acceptable for stairs and ramps not steeper than 1:12.**

## WHAT ABOUT THE OLD AS/NZS 3661 STANDARD?

Although AS/NZS 3661 standard is now obsolete, the D1/AS1 revision still recognises it. Section 2.1.2, note 2 states that a co-efficient of friction (COF) of 0.4 when tested under AS/NZS 3661.1 may be assumed to be equivalent to a SRV of 39. For both AS/NZS 3661.1 and AS4586 higher numbers equal more slip resistance, and they can be correlated (eg 0.4 = 39, 0.74 = 65).

## Summation of Compliance Results for AS/NZ 4586

Surface and Control Limited  
25 February 2019

Refer to Reports #10262 and #10263 for complete report.

Report #10262: Gradus Stairtile Wet and Dry:

Condition	WET	DRY
Reported SRV/PTV of sample	55	69
Class:	P5	P5

Report #10263 Gradus Standard PVC Insert for Gradus Stair Nosings

Condition	WET	DRY
Reported SRV/PTV of sample	52	63
Class:	P4	P5

Contact: [help@giltedge.co.nz](mailto:help@giltedge.co.nz)

Technical Direct Dial: 027 2689300



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REPORT 10263

25 FEBRUARY 2019

### PENDULUM SLIP RESISTANCE TEST

#### AS 4586 – 2018

**Test Date:** 24/01/19

**Prepared for:** Gilt Edge Industries LTD, Sydenham, Christchurch, New Zealand

**Specimen:** Standard PVC Insert for Gradus Nosings (five strips mounted on board) - unfixed

**Preparation:** Cleaned, rinsed and dried with neutral detergent

**Test Condition:** Sample in new condition supplied directly from manufacturer

**Slope:** 0° - Tested on a flat surface fixed within MUNRO Sample Holder

**Test Direction:** 0° Against Traffic, 90° With Traffic & 45° Diagonal to Traffic

**Temperature:** 21°

**Test Equipment:** MUNRO Pendulum Skid Tester – Serial Number 1137, calibrated to 13/02/19 and slider 55 to 13/02/19

**Conditioned:** Using P400 and Pink Lapping Film as per BS 7976-2

**Test Carried out:** Using Potable Water for wet tests

**Test Operative:** John Myers

Direction	0°	90°	45°
WET Mean of last 3 swings Slider 96	49	55	51
DRY Mean of last 3 swings Slider 96	59	68	61

Condition	Wet	Dry
Reported SRV/PTV of Sample	52	63
Class:	P4	P5

John Myers MBA



### How to interpret your wet test report

Wet pendulum test results offer six possible classifications: 'P0', 'P1', 'P2', 'P3', 'P4' or 'P5' where P0 offer lower levels of slip-resistance than P5.

Different location types requires a minimum level of slip-resistance under the 'wet tests interpretation guide, part 2' - National Construction Code Compliance Classifications.

Stair treads and Stair Nosings require a minimum classification of P4

### CLASSIFICATION OF PEDESTRIAN SURFACE MATERIALS ACCORDING TO THE AS 4586 WET PENDULUM TEST

Class	Pendulum SRV	
	Slider 96	Slider 55
P5	>54	>44
P4	45-54	40-44
P3	35-44	35-39
P2	25-34	20-34
P1	12-24	<20
P0	<12	-

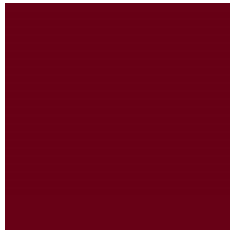


Gilt Edge Industries Ltd®

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CHC : 03 379 7067 or AKL: 09 443 7067  
Email: help@giltedge.co.nz

Technical & Sales Assistance  
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# Gradus Insert Colours



**Burgundy**



**Buttercup**



**Coffee**



**Evergreen**



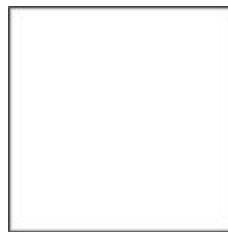
**Jet**



**Ocean**



**Poppy**



**Snowdrift**



**Steel**