



Applicator: Hino FC Mac Stripper, registration number BQY303,

Plant Number:116033 Type LA

Owner: Downer NZ Ltd

133 Main South Road

Green Island Dunedin 9018

Test Description: The pavement marking applicator as described by this certificate has been

tested under the conditions described and found to comply with the relevant

requirements of TNZ Specification NZTA T/12:2013.

Test Conditions: The scope of the Certification was as follows:

1) Application of Extruded Flat Thermoplastic to Schedule One, with thickness in accordance

with NZTA P/22:2006, NZTA P30:2008 and NZTA T12:2013.

2) Application of Audio Tactile Markings to Schedule Two, with markings in accordance with NZTA M/24:2006, NZTA P30:2008 and NZTA T12:2013.

3) Application of Profiled Multi Dot Line Markings to Schedule Three,

with thickness in accordance with DNZ Multi Dot Line Technical Specification

NZTA P/30:2008 and NZTA T/12:2013.

Test Identification: The tests were carried out at the Downer NZ Depot at 645 Great South Rd Penrose, Auckland,

from May 25th 2025 to May 26th 2025.

The Applicator Chassis Number is JHDFC4JJPXXX101157.

The test materials used were:

Damar Multi-Grade Thermoplastic for Schedule One, Schedule Two, and Schedule Three.

Potters Intermix Glass Beads were used for Schedule One, Two and Three

Equipment Tested: Extrusion Heads Mac Striperes Mini Mac FC 1 & 2

Structured Head Hofmann MDL300 721/0136 HS 1 & 2 Audiotactile Heads DNZ Multi Width Extruder Mac Stripers Mini Mac 75mm FC Temperature Controller Carel FC Compressor 8830199 Ingersoll Rand Speedometer Roadmarker FC

Bead Guns Graco Shovel

Applicator Speeds: Line Width

Schedule100mm150mm200mmOne6.445.515.24Two5.13 & 5.22Three6.355.754.84

Special Notes: The applicator is not capable of applying turn arrows.

Premelter: Pre-Melter Unit LKQ535 T/18 Certificate No:5974

was used for the T/12 tests.





Schedule One

Extruded Flat Thermoplastic in Accordance with NZTA P/22:2006

The markings when applied to flat electro-galvanised steel plates met all dimension and performance requirements as specified in NZTA P22: 2006, NZTA P30: 2008 and NZTA T12:2013.

The values specified in NZTA P/22:2006 used for determination of compliance were as follows:

Gap Length Between Segments

Where gap is 3.0m or more \pm 300mm Where gap is less than 3.0m but greater than 1.0m \pm 150mm Where gap is 1.0m or less \pm 50mm

Length of Segments

Where segment is longer than 5.0m \pm 150mm Where segment is shorter than 5.0m but longer than 1.0m \pm 75mm Where segment is 1.0m or shorter \pm 50mm

Thermoplastic Line Width

All line widths +10% - 5% of the specified values 100mm, 150mm & 200mm

Thermoplastic Height

New markings – asphalt 2.0 - 2.5mm New markings – chipseal 2.0 - 3.0mm

Retroreflectivity

AS/NZS 2009 Potters Intermix Glass Beads, Applied uniformly at a minimum rate of 300 grams/m² Reflectivity (dry – R): A minimum of 150 mcd/m²/lux.

Reflectivity (condition of wetness – RW): A minimum of 80 mcd/m²/lux.

Day Time Visibility.

Minimum Qd of 100 mcd/m²/lux

Colour.

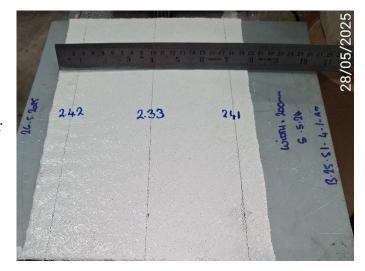
White; A discolouration of not more than 4/5 from colour Y35 of AS2007S

Yellow; A discolouration of not more than 4/5 from colour Y13 - Y14 of AS2007S

Skid Resistance

Greater than 50 BPN but less than 65 BPN











Schedule Two

Thermoplastic Audio-Tactile in Accordance with NZTA M24: 2006, NZTA P/30:2008 and T/12:2013

The markings when applied to flat electro-galvanised steel plates meet all dimension and performance requirements as specified in NZTA M24: 2006 Specification for Audio-Tactile Profiled Roadmarkings, NZTA P/30:2008 Specification for High Performance Roadmarkings and NZTA T/12:2013 Specification For Long-Life Pavement Marking Material Applicator Testing.

The values specified in NZTA M/24, NZTA P/30 and NZTA T/12:2013 used for determination of compliance were as follows.

Thermoplastic Line Width

All line widths +10% - 5% of the specified value 150mm

Thermoplastic Base Height

N/A Profile Blocks only

Raised Blocks

Spacing between blocks +5% - 5% of specified value (250mm)

Spacing between blocks +5% - 5% of specified value (500mm)

Length of block +30% - 20% of specified value (50mm)

Width of block +30% - 20% of specified value (150mm)

Block Height -5% +15% of specified value (8.0mm)

<u>Retroreflectivity</u>

AS/NZS 2009 Potters Intermix Glass beads applied uniformly at a minimum rate of 300 grams/m².

Reflectivity (dry - R): A minimum of 150 mcd/m²/lux.

Reflectivity (condition of wetness – RW): A minimum of 80 mcd/m²/lux.

Day Time Visibility.

Minimum Qd of 100 mcd/m²/lux

Colour.

White; A discolouration of not more than 4/5 from colour Y35 of AS2007S

Yellow; A discolouration of not more than 4/5

from colour Y13 - Y14 of AS2007S

Skid Resistance: Not Applicable









Schedule Three

Profiled "MultiDotLine" - markings in Accordance with DNZ Technical Specification, NZTA P/30:2008, and NZTA T/12:2013

MultiDot Line Application

Inside of a housing a hollow cylinder (scattering drum) positioned at the periphery and equipped with outlets is rotating during forward movement of the extruder. At a lockable slot, which width corresponds to the requested line width, outlets continuously open and close when the cylinder periphery is sliding along towards the road. Through these outlets the thermoplastic marking material will be applied in portions on the road.

The result is an exact defined regular pattern with regular distribution.

The markings when applied to flat electro-galvanised steel plates meet all dimension and performance requirements as specified in NZTA P/30:2008 Specification for High Performance Roadmarkings. The values specified in NZTA P/30:2008 used for determination of compliance were as follows:

Gap Length Between Segments

Where gap is 3.0m or more \pm 300mm Where gap is less than 3.0m but greater than 1.0m \pm 150mm Where gap is 1.0m or less \pm 50mm

Length of Segments

<u>Where segment is longer than $5.0m \pm 150mm$ </u> Where segment is shorter than 5.0m but longer than $1.0m \pm 75mm$ Where segment is 1.0m or shorter $\pm 50mm$

MultiDot Line Dots

- 1. Material application rate of $4.4 \text{kg/m}^2 \pm 10\%$
- 2. A coverage between 55 and 75%
- 3. Line appearing continuous when sitting in a passenger car.

MultiDot Line Widths

All line widths +10% - 5% of the specified values 100mm, 150mm & 200mm

Retroreflectivity

AS/NZS 2009 Potters Intermix Glass beads applied uniformly at a minimum rate of 300 grams/ m^2 Reflectivity (dry - R): A minimum of 150 mcd/ m^2 /lux. Reflectivity (condition of wetness - RW): A minimum of 80 mcd/ m^2 /lux.

Day Time Visibility.

Minimum Qd of 100 mcd/m²/lux

Colour.

White; A discolouration of not more than 4/5

from colour Y35 of AS2007S

Yellow; A discolouration of not more than 4/5

from colour Y13 - Y14 of AS2007S

Skid Resistance

Greater than 50 BPN but less than 65 BPN











Registration Details: [NZRF Stamp & Unique Number]

6054

Initial Certificate

Issuing Officer: R J Ridings

Quality Surveillance Ltd

Testing Officer: P Del Favero Downer NZ LTD

Signed:

Date of Expiry: 26th May 2026

 $Downer\ NZ\ LTD\quad BQY303\quad May\ 25^{th}-May\ 26^{th}\quad 2025$

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