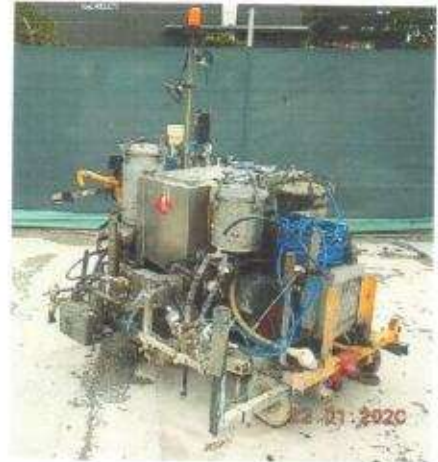


CERTIFICATE OF COMPLIANCE NZTA T 12:2013

Applicator: 2011 Kadeam Cub, Pedestrian
Controlled, Type LB Cold
Applied Plastic Applicator.
Applicator # 0982502111

Owner: Fulton Hogan Ltd, T/A
Coastline Markers
PO Box 14230
Kilbirnie
WELLINGTON 6241



Test Description: The long life pavement marking applicator described by this certificate has been tested under the conditions described and found to comply with the relevant requirements of NZTA Specification NZTA T12:2013

Test Conditions: The scope of the NZTA T12: 2013 recertification was as follows:

- Application of Agglomerate Cold Applied Plastic to Schedule One, Agglomerate Cold Applied Plastic, in accordance with Coastline Markers Technical Specification, NZTA P30:2008 and NZTA T12:2013.
- Application of Audio Tactile Markings to Schedule Two, Cold Applied Plastic Audio Tactile, in accordance with Coastline Markers Technical Specification, NZTA M24:2006, NZTA P30:2008 and NZTA T12:2013.
- Application of Audio Tactile Markings to Schedule Three, Cold Applied Plastic Audio Tactile in combination with Agglomerate Cold Applied Plastic, in accordance with Coastline Markers Technical Specification, NZTA M24:2006, NZTA P30:2008 and NZTA T12:2013.
- Application of Plain Flat Cold Applied Plastic to Schedule Four, Flat Spray Cold Applied Plastic in accordance with Coastline Markers Technical Specification, NZTA P30:2008 and NZTA T12:2013

Test Identification:

- The Chassis number of the tested unit is 0982502111
- The tests were carried out at Coastline Markers depot in Ringotai, Wellington on the 22nd January 2020.
- The materials used for the tests were: Damar CAP Structure/ ATP for Schedule One, Two and Three, Damar Spray Plastic Parts A & B for Schedule Four. Potters AC-07 adherence promoting coated drop-on glass beads was used for Schedule one, two & three, Potters adherence promoting coated intermix glass beads were used for Schedule Four.

Equipment Tested:	CAP Spray Gun	Homebuilt Handok	2111
		Two Component	
	CAP Pump	Graco Viscount 1:1	2111
	CAP Dosing Unit	Kadcam	2111
	Structure Spindle	Kadcam	2111
	Bead Applicator	Handok	2111
	Compressor	Campbell Hausfeld	DK639700
	Speedometer	Autoline 400	11928

Applicator Speeds:	100mm	150mm	200mm
Schedule One		1.25 km/h	
Schedule Two		1.58 km/h	
Schedule Three		1.46 km/h	
Schedule Four			1.88 km/h

From NZRF T 12 Register

SCHEDULE ONE**Agglomerate Cold Applied Plastic, in accordance with Coastline Markers Technical Specification, NZTA P30:2008 and NZTA T12:2013.**

The markings when applied to flat electro-galvanised steel plates met all dimension and performance requirements as specified in;
NZTA P30:2009 Specification for High Performance Roadmarkings and
NZTA T12:2013 Specification for Long-Life Pavement Marking Material Applicator Testing.

The values specified in NZTA P30:2009 and NZTA T12:2013 used for determination of compliance were as follows:

Gap length between segments

Where gap is 3.0m or more: $\pm 300\text{mm}$
Where gap is less than 3.0m but greater than 1.0m: $\pm 150\text{mm}$
Where gap is less than 1.0m: $\pm 50\text{mm}$

Length of segment.

Where segment is longer than 5.0m: $\pm 150\text{mm}$
Where segment is shorter than 5.0m but longer than 1.0m: $\pm 75\text{mm}$
Where segment is shorter than 1.0m: $\pm 50\text{mm}$

Line width.

All line widths; + 10 %, - 5 % of the specified value. (150 mm)

Structured (Agglomerate) Cold Applied Plastic.

1. Minimum material application rate of 2.4kg/m^2
2. A coverage between 55% and 75%, and
3. Line appearing continuous when sitting in a passenger car.

Retroreflectivity.

AS/NZS 2009 Class B (drop-on) glass beads applied uniformly at a minimum rate of 330gm/m^2 .
Dry retroreflectivity; a minimum of $150\text{mcd/m}^2/\text{lux}$.
Wet retroreflectivity; a minimum of $80\text{mcd/m}^2/\text{lux}$

Day Time Visibility.

Minimum Qd of $100\text{mcd/m}^2/\text{lux}$

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.

50 BPN or greater for roadmarkings with a dry film thickness of 0.9 mm or greater



SCHEDULE TWO

Cold Applied Plastic Audio Tactile, in accordance with Coastline Markers Technical Specification, NZTA M24:2006, NZTA P30:2008 and NZTA T12:2013

The markings when applied to flat electro-galvanised steel plates met all dimension and performance requirements as specified in;
NZTA M24:2006 Specification for Audio Tactile Profiled Roadmarkings, (alternative dimensional tolerances)
NZTA P30:2009 Specification for High Performance Roadmarkings and
NZTA T12:2013 Specification for Long-Life Pavement Marking Material Applicator Testing.

The values specified in NZTA M24:2006, NZTA P30:2009, NZTA T12:2013 used for determination of compliance were as follows:

Gap length between segments

Where gap is 3.0m or more: $\pm 300\text{mm}$
Where gap is less than 3.0m but greater than 1.0m; $\pm 150\text{mm}$
Where gap is less than 1.0m: $\pm 50\text{mm}$

Length of segment.

Where segment is longer than 5.0m; $\pm 150\text{mm}$
Where segment is shorter than 5.0m but longer than 1.0m; $\pm 75\text{mm}$
Where segment is shorter than 1.0m; $\pm 50\text{mm}$



Raised blocks.

Block height; + 15 %, - 5 % of the specified value. (8 mm)
Block width; + 30 %, - 20 % of the specified value (150mm)
Block length; + 30 %, - 20 % of the specified value (50mm)
Block pitch; + 5 %, - 5 % of the specified value. (250mm)

Retroreflectivity.

AS/NZS 2009 Class B (drop-on) glass beads applied uniformly at a minimum rate of 300gm/m².
Dry retroreflectivity; a minimum of 150 mcd/m²/lux.
Wet retroreflectivity; 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

Skid Resistance.

N/A

SCHEDULE THREE

Cold Applied Plastic Audio Tactile in combination with Agglomerate Cold Applied Plastic, in accordance with MOTSAM Part II, Coastline Markers Technical Specification, NZTA M24:2006, NZTA P30:2008 and NZTA T12:2013.

The markings when applied to flat electro-galvanised steel plates met all dimension and performance requirements as specified in:
MOTSAM Part II, NZTA P30:2009 Specification for High Performance Roadmarkings and NZTA T12:2013 Specification for Long-Life Pavement Marking Material Applicator Testing.

The values specified in MOTSAM Part II, NZTA P30:2009, NZTA T12:2013 used for determination of compliance were as follows:

Gap length between segments

- Where gap is 3.0m or more: $\pm 300\text{mm}$
- Where gap is less than 3.0m but greater than 1.0m; $\pm 150\text{mm}$
- Where gap is less than 1.0m: $\pm 50\text{mm}$

Length of segment.

- Where segment is longer than 5.0m; $\pm 150\text{mm}$
- Where segment is shorter than 5.0m but longer than 1.0m; $\pm 75\text{mm}$
- Where segment is shorter than 1.0m; $\pm 50\text{mm}$

Raised blocks.

- Block height; $+ 15\%$, $- 5\%$ of the specified value. (9 mm)
- Block width; $+ 30\%$, $- 20\%$ of the specified value (150mm)
- Block length; $+ 30\%$, $- 20\%$ of the specified value (50mm)
- Block pitch; $+ 5\%$, $- 5\%$ of the specified value. (250mm & 500mm)

Structured (Agglomerate) Cold Applied Plastic.

1. Minimum material application rate of 2.8kg/m^2
2. A coverage between 55% and 75%, and
3. Line appearing continuous when sitting in a passenger car.

Retroreflectivity.

AS/NZS 2009 Class B (drop-on) glass beads applied uniformly at a minimum rate of 300gm/m^2 .
Dry retro reflectivity; a minimum of $150\text{mcd/m}^2/\text{lux}$.
Wet retro reflectivity; a minimum of $80\text{mcd/m}^2/\text{lux}$

Day Time Visibility.

Minimum Qd of $100\text{mcd/m}^2/\text{lux}$

Colour.

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

Skid Resistance.

N/A



SCHEDULE FOUR

Flat Spray Cold Applied Plastic in accordance with Coastline Markers Technical Specification, NZTA P30:2008 and NZTA T12:2013

The markings when applied to flat electro-galvanised steel plates met all dimension and performance requirements as specified in;
NZTA P30:2009 Specification for High Performance Roadmarkings and
NZTA T12:2013 Specification for Long-Life Pavement Marking Material Applicator Testing.

The values specified in NZTA P30:2009 and NZTA T12:2013 used for determination of compliance were as follows:

Gap length between segments

Where gap is 3.0m or more: $\pm 300\text{mm}$
Where gap is less than 3.0m but greater than 1.0m; $\pm 150\text{mm}$
Where gap is less than 1.0m: $\pm 50\text{mm}$

Length of segment.

Where segment is longer than 5.0m; $\pm 150\text{mm}$
Where segment is shorter than 5.0m but longer than 1.0m; $\pm 75\text{mm}$
Where segment is shorter than 1.0m; $\pm 50\text{mm}$

Line width.

All line widths; + 10 %, - 5 % of the specified value. (150 mm)

Flat Spray Cold Applied Plastic.

Dry film thickness (DFT) of $450\ \mu\text{m} \pm 75\ \mu\text{m}$

Retroreflectivity.

AS/NZS 2009 Class C (Intermix) glass beads applied uniformly at a minimum rate of $275\text{gm}/\text{m}^2$.
Dry retroreflectivity; a minimum of $150\ \text{mcd}/\text{m}^2/\text{lux}$.
Wet retroreflectivity; a minimum of $80\ \text{mcd}/\text{m}^2/\text{lux}$

Day Time Visibility.

Minimum Qd of $100\ \text{mcd}/\text{m}^2/\text{lux}$

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.

50 BPN or greater for roadmarkings with a dry film thickness of 0.9 mm or greater



CERTIFICATE OF COMPLIANCE NZTA T 12:2013

Registration Details:

[NZRF Stamp & Unique Number]

5096



Initial Certificate Testing Officer:

Ross Ridings
Quality Surveillance Ltd

T/12 Testing Officer:

Lance Wright
Fulton Hogan Ltd T/A Coastline Markers

Signed:



Date of Expiry:

22nd January 2021

From NZRF T 12 Register