NZ TRANSPORT AGENCY
WAKA KOTAHI

CERTIFICATE OF COMPLIANCE **NZTA T 12:2013**

Applicator: Type LA 2019 Borum BM3000-DL Thermoplastic Applicator
Registration # MHU876

Owner: Higgins Contractors Ltd
P O Box 5164
Terrace End
Palmerston North

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 and Higgins Contracting Technical Specifications**

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

1. Application of Plain Flat Markings to Schedule A, Thermo Plastic, in accordance with Borum Technical Specification, NZTA M24:2006, NZTA P30:2008 and NZTA T12:2013

2. Application of Audio Tactile Markings to Schedule B, Thermo Plastic Audio Tactile, in accordance with Borum Technical Specification, NZTA M24:2006, NZTA P30:2008 and NZTA T12:2013.

3. Application to Schedule C, Agglomerate Thermo-plastic in accordance with Borum Technical Specification, NZTA P 30:2008 and NZTA T 12:2012,

Test Identification:

- The Registration plate of the tested unit is MHU876 and the Chassis number is 220265
- The tests were carried out at the depot of Higgins Group Holdings Ltd on the 11th of September 2024.
- The materials used for both tests was; GEVEKO Thermoplastic Roadmarking Material and Potters R145 Pristine glass beads (AS/NZS 2009)

Equipment Tested:

Extruder Head	Borum DOTnLINE	/220265
Extruder Drive	Borum Hyd Screw	/220265
Screw Compressor	SCI 1800	/220265
Bead Applicators (2)	Borum BMC30	/220265
Intermittent Line Devise & Speedometer	Borum Line Master	/220265

Applicator Speeds: (150mm)

Schedule A	2.1 km/hr
Schedule B	2.0 km/hr
Schedule C	2.6 km/hr

Special Notes:

1. The applicator is not capable of applying turn arrows.
2. This certificate is accompanied by T18 certificate.

Schedule A

Plain Flat Thermo Plastic markings in accordance with Borum 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 Roadmaking's 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 ± 300mm
Where gap is less than 3.0m but greater than 1.0m ± 150mm
Where gap is 1.0m or less ± 50mm

Length of segment.
Where segment is longer than 5.0m; ± 150mm
Where segment is shorter than 5.0m but longer than 1.0m; ± 75mm
Where segment is shorter than 1.0m; ± 50mm

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

Plain Flat Thermo Plastic.
Dry film thickness (DFT) of 6.5mm ± 75µm.

Retroreflectivity.
AS/NZS 2009 Class B (drop-on) glass beads applied uniformly at a minimum rate of 275gm/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.
50 BPN or greater for roadmaking's with a dry film thickness of greater than 0.9 mm.

SCHEDULE B

Audio Tactile Profile Markings with Thermoplastic in accordance with 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,
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 and NZTA T12:2013 used for determination of compliance were as follows:

Gap length between segments
Where gap is 3.0m or more: ± 300mm
Where gap is less than 3.0m but greater than 1.0m; ± 150mm
Where gap is less than 1.0m: ± 50mm

Length of segment.
Where segment is longer than 5.0m; ± 150mm
Where segment is shorter than 5.0m but longer than 1.0m; ± 75mm
Where segment is shorter than 1.0m; ± 50mm

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. (500 & 250mm)

Retroreflectivity.
AS/NZS 2009 Class B (drop-on) glass beads applied uniformly at a minimum rate of 275gm/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

SCHEDULE C

Agglomerate Thermo Plastic, in accordance with Borum 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: ± 300mm
Where gap is less than 3.0m but greater than 1.0m; ± 150mm
Where gap is less than 1.0m: ± 50mm

Length of segment.
Where segment is longer than 5.0m; ± 150mm
Where segment is shorter than 5.0m but longer than 1.0m; ± 75mm
Where segment is shorter than 1.0m; ± 50mm

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

Structured (Agglomerate) Thermo Plastic.

1. Minimum material application rate of 5.0kg/m²
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/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.
50 BPN or greater for roadmarkings with a dry film thickness of 0.9 mm or greater

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Registration Details: [NZRF Stamp & Unique Number]

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The New Zealand Roadmarkers Federation Inc
PO Box 13 605, Auckland

Initial Certificate Testing Officer: Bruce Belton
Mark Roads Ltd

T/12 Testing Officer: Bruce Belton
Mark Roads Ltd

Signed: *BjBelton*

Date of Expiry: **5th October 2025**