

# The ultimate in durability and longevity, inlaid road markings are applied to ground-out sections of asphalt to create markings flush with the road surface, or $2-3 \mathrm{~mm}$ above the road surface. 

Inlaying the markings instead of applying them to the road surface extends the expected maintenance interval by $2-3$ times on average, as they are more stable overall and highly resistant to damage from snowplow blades and other high-stress activity.

Due to their durability, inlaid markings are most suitable for urban applications in high-wear and high-ADT areas. They perform well for both longitudinal lines and transverse markings, and a single application is often enough for the life of the surface.

Inlaid markings are created using Lafrentz's System 300 Thermoplastic - a product specifically engineered to provide stability and durability for inlaid applications.

## SYSTEM 300 THERMOPLASTIC

Thermoplastic uses a heat process to create a hydrocarbon bond to the road surface. Lafrentz heats solid plastic blocks to high temperatures, and applies the liquid plastic to either longitudinal or transverse markings. Lafrentz has years of experience working with thermoplastic, and has been applying it to roadways since 1974.


Longitudinal line application


Transferring plastic

## LAFRENTZ ROAD MARKING

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> INLAID MARKINGS
> DESIGNED \& PERFECTED FOR CANADA'S COLD CLIMATE

## BENEFITS OF LAFRENTZ INLAID MARKINGS:

© The most durable road marking product available
© Twice as durable as surface-applied markings (on average)
© Can be applied flush or $2-3 \mathrm{~mm}$ above road surface

No maintenance required for 7-10 years (on average)
( Very good retro-reflectivity
Mitigates damage from snowplow blades
© Great for longitudinal or transverse markings
© System 300 Thermoplastic is ISO:9001 certified


Grinding the asphalt surface

## 66 Inlaid road markings using Lafrentz's System 300 Thermoplastic are the most durable road markings available. 99



Longitudinal line application


Transverse -pre-marking


Transverse-line guides

## THE APPLICATION PROCESS

Lafrentz applies inlaid markings across Western Canada using System 300 Thermoplastic as the base. The application processes, outlined below, vary depending on the marking type: longitudinal or transverse.

LONGITUDINAL LINE APPLICATION
To apply inlaid markings for longitudinal lines, first the lines are pre-marked using a hand painter. The line is ground out to a depth of 5 mm using a large grinder. To ensure proper bonding between the thermoplastic and the asphalt, the grindings must be swept away and the area clean and dry before application. The thermoplastic is prepared on-site and transferred to a small pot on a production applicator. As the applicator glides across the area, the plastic moves from the pot to a shoe, and is extruded onto the asphalt. Glass beads are automatically applied to the surface for additional retro-reflectivity.

## TRANSVERSE MARKING APPLICATION

For symbols or crosswalks, the design is pre-marked using a hand painter, or stenciled as necessary. The area is ground to a depth of $5 \mathrm{~mm}-10 \mathrm{~mm}$ using a smaller grinder, and the area cleaned. If stencils or guides are necessary, they are applied at this stage. The liquid thermoplastic is poured into a metal hand form, which extrudes plastic into the grind and extending out onto the surface of the roadway. The guide rail maintains straight lines and ensures the result is sharp and crisp. Additional glass beads are handapplied on top of the liquid plastic. Once solid, the marking is cleaned and trimmed as necessary to produce a sharp look.

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