



LL25 Technical Manual

REV. B — MAY 2026

Proudly made in Québec 

LL25 Technical Manual™

1. Technical guide – LL25
2. Technical data sheet – LL25
3. SOP – Materials compatible with the LL25 solution
4. SOP – LL25 installation equipment
5. SOP – LL25 treatment depth
6. SOP – LL25 target compaction level
7. SOP – LL25 application weather conditions
8. SOP – LL25 product cure time and associated restrictions
9. SOP – LL25 quality control
10. SOP – LL25 storage conditions

LL-TEQ™ LL25 is a water-based polymeric binder, formulated from vinyl and acrylic copolymers, intended for topical surface treatment as a sealing and protective layer that reduces the permeability of treated surfaces, limiting water infiltration and the associated degradation mechanisms. It is applied to a prepared and compacted surface in order to reduce water penetration, limit the effects of ageing, improve surface cohesion and resistance to erosion and rilling, enhance surface durability, and, where required, improve appearance with or without pigment.

General application sequence

- Inspection of the substrate and validation of its structural stability.
- Surface preparation (cleaning, removal of contaminants, correction of major defects).
- Verification that the substrate is dry or dry enough to allow absorption of the product.
- Uniform spraying of the product using calibrated equipment.
- Application of additional passes according to the absorption rate of the substrate.
- Keeping the surface undisturbed during the initial cure.
- Verification of surface set before opening to traffic.

The process is carried out using a distributor truck or a spray truck fitted with a calibrated bar, together with the usual equipment required for substrate preparation.

Additional passes may be applied until a uniform surface saturation is reached, characterized by a significant decrease in absorption and a homogeneous appearance with no excessive build-up.

02 Technical data sheet – LL25

Product name	LL25
Product type	Water-based polymeric binder
Primary function	Topical surface sealing, protective treatment and permeability reduction
Primary use	Protection and extension of the service life of asphalt surfaces or other compatible substrates
Compatible substrates	Existing asphalt pavements, prepared and compacted surfaces, surfaces treated with LL30, and other substrates compatible with a protective topical treatment
Application method	Uniform surface spraying using calibrated distribution equipment
Application rate	Variable depending on the porosity and condition of the substrate, determined on site
Treatment depth	Not applicable; topical application only
Target compaction	The substrate must have reached the required compaction level before application
Cure	An initial cure is required after application; additional passes must be applied only after sufficient absorption of the previous pass and stabilization of the surface
Storage temperature	Above 5 °C and below 44 °C
Frost sensitivity	Frost-sensitive before installation

02 Technical data sheet – LL25

Sun exposure	Store away from direct sunlight
Shelf life	12 months unopened / 6 months after opening
Mixing requirement	No mixing or re-mixing required before use
Storage conditions	Store in an original or compatible, closed container, protected from contamination, frost, excessive heat and direct sunlight
Pre-use verification	Visual inspection required before application
General restriction	Do not use a contaminated or visibly altered product without the manufacturer's approval

Substrates compatible with topical surface treatment

LL25 is compatible with the following substrates:

- Existing asphalt pavements.
- Prepared and compacted asphalt surfaces.
- Layers treated with LL30.
- Other prepared, compacted substrates compatible with a protective topical treatment.

SOP statement

LL25 is applied to the compatible substrates listed above, provided that the substrate is prepared and compacted.

General statement

LL25 is used as a topical surface treatment on a compatible substrate, as part of a cold process using standard road methods.

Topical surface treatment – LL25

The LL25 surface sealing process is applied to a prepared and compacted substrate using standard site equipment.

Required equipment

- Distributor truck or tanker truck fitted with a calibrated spray bar allowing uniform application and control of the flow rate as well as the surface application rate of the product.
- Usual substrate-preparation equipment, depending on the condition of the surface before treatment.

Examples of equivalent equipment (for reference only)

- Distributor truck: Rosco Maxigill Distributor or equivalent.
- Spray truck: ETNYRE Distributor or equivalent.

Operational note

Any equivalent equipment capable of achieving a uniform, controlled application and a compliant finish may be used.

Surface application depth

LL25 is not a depth treatment. It is applied at the surface as a sealing and protective layer.

SOP statement

LL25 is applied at the surface on a prepared and compacted substrate. Owing to its high viscosity, the product penetrates the surface to approximately 20 mm on average and saturates the surface layer. Within the LL-TEQ™ system, it fills the residual surface voids left by LL30 when it is incorporated into the structure, completing the uniformity of the assembly and constituting the finishing of the treated block. This surface penetration does not constitute a depth treatment; no structural treatment depth applies to LL25. The application is carried out as a uniform surface layer at the application rate determined according to the porosity and condition of the substrate.

General statement

LL25 is limited to a surface application and is not used as a depth treatment.

Topical surface treatment

LL25 is applied to a substrate that has been previously prepared and compacted. The substrate must have reached the required compaction level before the surface treatment is applied. No additional structural compaction applies to LL25 itself.

General statement

For LL25, compaction is a matter of the condition of the substrate before application and not of the topical treatment itself.

Topical surface treatment

The application of LL25 must be carried out under conditions that allow uniform spraying, adequate penetration of the product and undisturbed initial drying.

Required weather conditions

- Depending on the type of substrate:
 - Asphalt: dry surface; the product is applied as is.
 - LL30 layer: LL25 is applied immediately after the integration of LL30, while it is still fresh; LL25 fills the residual surface voids. No additional wetting is required.
 - Other surfaces (bare soil, dust control, erosion control): the surface must be wetted before application, without being saturated, in order to prevent the migration of fines to the surface.
- Conditions allowing uniform spraying and normal absorption of the product.
- Ambient temperature and substrate temperature above 5 °C at the time of application and during the start of the cure.
- Substrate not frozen at the time of application.
- No application in the rain or on a saturated substrate, during application and at the start of the cure.

LL25 requires at least 3 h without rain after application: do not apply the product if rain is possible within 3 h, because rain dissolves it and prevents its integration (reapplication required).

SOP statement

LL25 must be applied to a substrate that is not frozen, clean and adequately prepared according to its type, when the ambient temperature and that of the substrate are above 5 °C, so as to allow uniform spraying, adequate absorption of the product and satisfactory initial drying.

Work must not be carried out in the rain or under conditions likely to impair the application, absorption or initial drying of the treatment.

General statement

Work must be planned so as to avoid any weather condition likely to compromise the application, absorption, start of cure or final quality of the surface treatment.

In the presence of unfavourable conditions, work must be postponed until conditions compatible with the process return.

Topical surface treatment

The cure period of LL25 begins immediately after application. An initial cure is required in order to allow the product to penetrate, the surface to set and the treatment to undergo initial drying before any exposure to traffic or other disturbance.

Reference cure requirements

- The cure begins immediately after application.
- The treated surface must remain intact until the product has penetrated, the surface has set sufficiently and it exhibits surface stability with no pull-off or material transfer.
- Additional passes, when required, must be applied only once the previous pass has been absorbed or has reached the required intermediate condition.

Restrictions during the cure

- No traffic before the treated surface has set sufficiently.
- No rain during application or at the start of the cure; LL25 requires **at least 3 h without rain after application**.
- No activity generating dust, contamination or surface disturbance during the initial cure.

SOP statement

LL25 must begin its cure immediately after application. The treated surface must remain protected from traffic, rain, contamination and any disturbance until adequate penetration, sufficient surface set and initial drying have occurred; a minimum of 3 h without rain after application is required. When an additional pass is required, each further pass must be applied only after the previous pass has been sufficiently absorbed or has reached the required intermediate condition.

General statement

The cure time of LL25 depends on the condition of the substrate, the absorption of the material, the ambient temperature, the humidity and the weather conditions. No treated section must be opened to traffic or subjected to a subsequent step until the required initial cure condition has been reached.

Topical surface treatment

The quality control of LL25 is intended to ensure the conformity of the substrate, the uniformity of application of the surface treatment and the final quality of protection and finish.

Quality control checkpoints

- Verification that the substrate is prepared, clean, profiled and compacted.
- Verification of spraying uniformity.
- Verification of complete coverage of the surface.
- Verification of the absence of build-up, missed areas or visible defects.
- Verification of the number of passes required according to the absorption of the substrate and the application rate selected.
- Verification of the final finish, with or without pigment, according to the intended objective.

SOP statement

The quality control of LL25 includes verification of the condition of the substrate before application, of spraying uniformity, of complete coverage of the surface and of the final quality of the applied treatment. Depending on the nature and absorption of the substrate, more than one pass may be required.

Additional passes must be applied until the substrate no longer absorbs the product significantly and the surface exhibits uniform coverage with no excessive build-up.

The final surface must exhibit a uniform, continuous appearance consistent with the intended finish.

Storage conditions

LL25 must be stored in its original container or in a compatible, clean, properly labelled and hermetically sealed container.

The product must be stored at a temperature above 5 °C and below 44 °C, protected from frost and kept away from direct sunlight. LL25 is frost-sensitive before its installation and must not be stored under conditions that could cause the product to freeze.

Its shelf life is 12 months when the container is unopened and 6 months after opening. No mixing or re-mixing is required before use, even after a prolonged storage period within the indicated shelf life.

Before application, the product must be visually checked to confirm that it remains in a condition suitable for the intended use and that it has not been affected by frost or a freeze-thaw cycle.

Any product showing visible contamination or abnormal alteration must not be used without the prior approval of the manufacturer.

General statement – Storage

Products must be stored in a clean, controlled environment, under conditions that preserve their integrity and their fitness for application. They must be protected from direct sunlight, contamination, frost and excessive heat. The shelf life is 12 months in an unopened container and 6 months after opening. No mixing or re-mixing is required before use, provided that the product has been stored under the specified conditions and remains within its shelf life.

PHONE

+1 418 476 5110

EMAIL

info@ll-teq.com

WEBSITE

ll-teq.com

ADDRESS

217-650 Rue Graham Bell, Québec, QC, G1N 4H5