



**DEVELOPMENTAL SPECIFICATIONS
FOR
HIGH PERFORMANCE THIN LIFT OVERLAY**

**Effective Date
April 16, 2019**

THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

15071.01 DESCRIPTION.

These specifications describe requirements for a highly polymer modified asphalt thin lift surface course. Apply Section 2303 of the Standard Specifications unless otherwise directed in these specifications.

15071.02 MATERIALS.

A. Asphalt Binder.

Use PG ~~58-34E+~~ 64-34E+ with a minimum percent recovery of 90% when tested at ~~58°C~~ 64°C per AASHTO T 350 at 3.2 kPa.

B. Mix Design.

- | | |
|-------------------------------------|------------|
| 1. Design Gyration | 50 |
| Design Voids Target (Based on %Gmm) | ≤ 2.0 |
| Film Thickness | 8.0 – 13.0 |
| Aggregate Quality | A |
| Crushed Content (minimum) | 50% |
| FAA (minimum) | 40 |
| Sand Equivalency (minimum) | 50 |
- 2. Friction Aggregate.**
Interstates: minimum 30% of Total Aggregate shall be Type 2 or better
Non-Interstates: minimum 50% of Total Aggregate shall be Type 4 or better
- 3. Hamburg Testing (AASHTO T324).**
Compact to 3.5% air voids. No more than 4 mm rutting in the first 8000 passes.
- 4. Do not use more than 15.0% binder replacement. Do not use RAS.**

5. Gradation.

Table DS-15071: Thin Lift Overlay Gradation

| Sieve Size | Min % Passing | Max % Passing |
|-------------------|----------------------|----------------------|
| 1½ inch | | |
| 1 inch | | |
| 3/8 inch | 91 | 100 |
| #4 | | 90 |
| #8 | 27 | 63 |
| #16 | | |
| #30 | | |
| #50 | | |
| #100 | | |
| #200 | 2 | 10 |

15071.03 CONSTRUCTION.

- A.** Apply tack coat prior to placement of thin lift overlay according to Section 2303 of the Standard Specifications.
- B.** Pave when ambient temperatures are at least 60°F and rising.
- C.** Compact with static steel wheeled roller.
- D.** Do not open to traffic until the entire mat has cooled below 150°F.
- E. Quality Assurance/Quality Control.**
 - 1. Field Voids Acceptance.**
Acceptance for field voids shall be Class II compaction defined in Section 2303 of the Standard Specifications.
 - 2. Lab Voids Acceptance.**
Sample from windrow or hopper. Apply Article 2303.05, A, 3, a, 2, of the Standard Specifications for AAD acceptance. Air void target is based on approved JMF.
 - 3.** Take at least one cold feed for gradation control each day of production.

15071.04 METHOD OF MEASUREMENT.

Hot Mix Asphalt Thin Lift Overlay will be measured according to Article 2303.04 of the Standard Specifications.

15071.05 BASIS OF PAYMENT.

Hot Mix Asphalt Thin Lift Overlay will be paid for according to Article 2303.05 of the Standard Specifications.