



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

**Effective Date
October 17, 2023**

THE STANDARD SPECIFICATIONS, SERIES 2023, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

23038.03 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.

23038.03 MATERIALS.

A. Asphalt Binder.

Use PG 64-34E+ with a minimum percent recovery of 90% when tested at 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 – 15.0 |
| Aggregate Quality | A |
| Crushed Content (minimum) | 50% |
| FAA (minimum) | 40 |
| Sand Equivalency (minimum) | 50 |
- 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
 - Hamburg Testing (AASHTO T324).**

Required only for Interstate paving mixes. Compact to 3.5% air voids. No more than 4 mm rutting in the first 8000 passes.
 - Do not use more than 15.0% binder replacement. Do not use RAS.

5. Gradation.

Table DS-23038: 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

23038.03 CONSTRUCTION.

- A. Apply tack coat prior to placement of thin lift overlay according to [Section 2303](#) of the Standard Specifications.
- B. Keep the production temperature of HMA mixtures between 225°F and 335°F until placed on the grade.
- 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.

23038.04 METHOD OF MEASUREMENT.

Hot Mix Asphalt Thin Lift Overlay will be measured according to [Article 2303.04](#) of the Standard Specifications.

23038.05 BASIS OF PAYMENT.

Hot Mix Asphalt Thin Lift Overlay will be paid for according to [Article 2303.05](#) of the Standard Specifications.