



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

**Effective Date  
February 20, 2016**

**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.**

**15037.01 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.

**15037.02 MATERIALS.**

**A. Asphalt Binder.**

Use PG 76-34 with a minimum percent recovery of 90% when tested at 64°C per AASHTO T 350 at 3.2 kPa. See Table 4137.01-1 in the Standard Specifications for test temperature.

**B. Mix Design.**

**1. See Materials I.M. 510 Appendix A.**

Design Gyration	50
Design Target (%Gmm)	3.0
Film Thickness	8.0 – 13.0
Aggregate Quality	A
Crushed Content (minimum)	50%
FAA (minimum)	40
Sand Equivalency (minimum)	50
VMA (minimum)	16%

**2. 50% of the total aggregate shall be Friction Type 4 for non-interstate roadways, and Friction Type 2 for interstate roadways.**

**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. Mix approval is based on Performance Testing Requirements per Table 5 in Materials I.M. 510 Appendix A.**

**Hamburg Testing (AASHTO T324).**

Compact to 3.5% air voids. No more than 8 mm rutting in the first 8000 passes.

**4. Do not use RAP more than 15.0% binder replacement.**

**5. Gradation.**

Sieve Size	Min % Passing	Max % Passing
1 ½ inch		
1 inch		
3/8 inch	91	100
#4		90
#8	27	63
#16		
#30		
#50		
#100		
#200	2	10

**15037.03 CONSTRUCTION.**

- A. Apply tack coat prior to placement of thin lift overlay using a trackless product approved on AASHTO's Product Evaluation Listing (APEL).
- B. Pave when ambient temperatures are at least 60°F and rising
- C. Compact with 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 and test one hot box per day of production unless otherwise approved by the Engineer 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.

**15037.04 METHOD OF MEASUREMENT.**

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

**15037.05 BASIS OF PAYMENT.**

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