MINIMUM QUALITY ASSURANCE TESTING REQUIREMENTS ASPHALT CONCRETE PAVEMENT - SUPERPAVE SPEC 3.53, MANAGED QA

TEST SMQA/12	STANDARD	MINIMUM FREQUENCY	ATT- DATA SHEETS
SAMPLING			
1. Mix	ATT-37	[1] Five per each Lot (full Production)	
2. Cores (Obtained by Contractor) Stratified Random Test Sites for ACP Projects	ATT-56	Each Lot	MAT 6-82
3. Coring (Monitor Contractor's Coring)	ATT-5	One per Segment	
4. Aggregate	ATT-38	As required for Correction Factor	
MIX TESTING			
1. Asphalt Content	ATT-12 Part II or ATT-74	[2]One per Segment for each QA Acceptance Lot	MAT 6-79 MAT 6- 98 MAT 6- 99 MAT 6- 100
2. Correction Factor, Extracted Asphalt Content	ATT-12 Part III	As specified in ATT-12 Part III	MAT 6-101 MAT 6-75
3. Correction Factor, Ignition Asphalt Content	ATT-74	As specified in ATT-74 Part II	MAT 6-99
4. Mix Moisture Content	ATT-15	[1]Five tests per Lot (Full Production)	MAT 6-80s
5. Field Formed Gyratory Specimens(N design)	AASHTO T 312	[1]Five tests per Lot (Full Production)	MAT 6-80s
AGGREGATE TESTING			
1. Extraction or Ignition Sieve Analysis	ATT-26	Each sample, QA Acceptance Lot	MAT 6-75
2. Correction Factor Aggregate Sieve Analysis	ATT-26	As required	MAT 6-25
OTHER RELATED TESTING			
1. Density Immersion Method, Saturated Surface Dry	ATT-7	Each core or formed specimen	MAT 6-80
2. Voids Calculations, Cores or Formed Specimens using Maximum Specific Gravity(Gmm)	TLT-309	Each core or formed specimen	MAT 6-80s MAT 6-79
3. Percent Compaction, Asphalt Concrete Pavement (% of Gmm)	TLT-309	One per Segment	MAT 6-79
4. Maximum Specific Gravity of Bituminous Mixes (Gmm)	ASTM D2041	[1]Five tests per Lot (Full Production)	
PAVEMENT SURFACE			
1. Smoothness[3]	ATT-59	Each Sublot	MAT 6-73
2. Segregation	Paving Guidelines & Segregation Rating Manual	Each Lane.Km	MAT 6-95

REPORTING 1. All Approved Asphalt Mix Designs and Changes in Job Mix Formula	Email completed **Superpave Mix Design & JMF Summary Sheet** to Project Sponsor and Surface Engineering & Aggregates Section at trans.constructqa@gov.ab.ca. Provide written documentation to Contractor for approved designs and JMF changes. Included copies of all mix designs and JMF approvals in Final Details.
2. Superpave Lot Paving Report	Complete **MAT 6-78s** Superpave Lot Paving Report. Submit on a weekly basis to the Project Sponsor and email to trans.constructqa@gov.ab.ca.
3. Profilograph & Segregation	**MAT 6-73** and **MAT 6-95s** to be included in Final Details as outlined in Engineering Consultant Guidelines for Highway and Bridge Projects - Volume 2, Construction Contract Administration. Fax early submission copy of **Final Details ACP EPS** or **Final Details IRI ACP – EPS** form to 422-2846 or email to trans.constructqa@gov.ab.ca within one month of paving completion.
[1] Note: One sample for the first two hours of production; one immediately after, remaining samples at random over the rest of the day. Full production is considered when a Lot has more than eight hours of plant production. [2] Note: On QC Acceptance Lots a minimum of one asphalt content on loose mix using test procedures specified in Table 3.53.4. Test Methods on Superpave Managed QA Projects. [3]Note: California Profilograph method or International Roughness Index method using inertial profilers (testing provided by the Contractor) as outlined in contract.	

Testing requirements as per MQA specifications for Superpave are briefly summarized as follows:

- Consultant to sample loose mix from behind the paver for the formation of Gyratory specimen (to Ndesign) and determination of Maximum Specific Gravity (Gmm).
- Contractor to obtain all core samples at site locations determined by the Consultant.
- Materials processing and QA testing is to done in a laboratory facility (mobile or stationary) that is no further than one hour from the project.
- Contractor quality control test results for asphalt content and gradation will be used for conditional acceptance of most Lots. For these QC Acceptance Lots the Consultant is do a minimum of one asphalt content test per Lot on loose mix using the specified test procedures.
- For QA Acceptance Lots report only the QA test results on the Lot Paving Report. For QC Acceptance Lots report all available QA results and the QC test results for asphalt content and gradation. Indicate on the Lot Paving Report which are QC and which are QA.
- On QC Acceptance Lots the Target Asphalt Content is to be used to determine air voids.
- The minimum number of QA Lots in which full QA testing is completed is outlined in section 3.53.1.2 Definitions of Specification 3.53 Superpave-EPS.
- At time of publication the Department is transitioning to the use of inertial profilers and International Roughness Index (IRI) criteria for pavement smoothness. Reporting requirements are still to be finalized and will be released in the form of a Construction Bulletin or other means.