

OSSGA Technical Bulletin, July 2015

MTO Special Provision 110S12

The Ministry of Transportation of Ontario (MTO) has in place SP110S12, September 2014 whereby under Table 5 the MTO requires 95% Category 1 aggregates retained on the 4.75 mm sieve according to Table B of LS-609 entitled "Procedure for the Petrographic Analysis of Coarse Aggregate" on extracted Superpave FC1 and FC2 mixes.

OSSGA Position:

It is apparent the 95% minimum requirement in Table 5 will not work, based on real situations experienced in 2015, and will most likely lead to unnecessary claims on MTO contracts. As a result, OSSGA has asked the MTO to review the requirement for 95%. The intent for specifying 95% minimum category 1 was to assure there is a majority of hard rock aggregate to provide the skid resistance in the premium surface course mixtures when incorporating up to 20% RAP.

Background Information:

In earlier discussions with MTO the OSSGA Specifications Committee had originally agreed to the 95% minimum based on Superpave FC 1 mixtures using up to 20% RAP derived from HL 1 or DFC type mixtures. It was estimated there would be a maximum inclusion of 5% carbonate material retained on the 4.75mm sieve. The MTO's primary concern was the introduction of carbonate aggregate from RAP resulting in a reduction of skid resistance.

The concerns raised by the Aggregate Producers include, but are not limited to:

- A DSM sourced coarse aggregate material may meet the PN maximum requirement in Table 3 based on LS 609, Part A on virgin aggregate but may fail the Table 5 minimum 95% Category 1 when examined under LS 609, Part B, extracted from hot mix. This is because the MTO has not established requirements under Table 3 and Table 5 that coincide.
- The variability of the petrographic analysis by certified labs is extremely high. In 2014, the PN range was between 102 and 179 and the % Good (Category 1) aggregates range was between 64.5 and 98.8. Due to this variability, it does not appear that it is appropriate to utilize such a measure for quality assurance.

Current Actions by OSSGA:

OSSGA Specification Committee is actively engaged with OHMPA Technical Committee and the MTO to find a resolution as soon as possible.

MTO has suggested an interim requirement of 90% instead of the 95% for Category 1, however, OSSGA/OHMPA members have completed some work that indicate 90% is not a realistic value.

The primary concern is skid resistance and it has been suggested by industry the MTO focus on the carbonate aggregates and set a limit for its allowance while still assessing under LS 609, Part B.

Any resolution on the technical aspects of Special Provision 110S12 will be communicated to ORBA to handle the contractual matters and specifically a request for retroactivity to current contracts where the SP 110S12, September 2014 exists.

Possible Actions by Individual Aggregate Producer:

In the meantime, possible actions that the aggregate producer with a DSM source could consider to protect their interest in this matter include the following:

- Assess the DSM coarse aggregate under LS 609 Part A and B to determine if there will be an issue
- Communicate to the hot mix customer your DSM material meets specification with proof of test results completed by a CCIL certified petrographer under SP110S12, Table 3
- Reviewing and clearly indicating in all your documentation with your customer, what your specific aggregate material acceptance and rejection criteria will be for these projects.
- Ensuring that your customer understands the possible changes to the final aggregate material supplied to the MTO due to haul truck cleanliness, customer handling, stockpiling, processing and installation at the project site which are all out of control by the aggregate producer.
- Implementing a testing program to quantify the quality of the aggregate products supplied to the customer and making these available to the customer. Such a testing program will not guarantee acceptance by the owner, however, it will distinguish the quality of the aggregate products you had supplied to your customers.

The importance of the aggregate producer reviewing the contract specifications prior to bidding and clearly defining their responsibilities and how the aggregates will be evaluated by your customer cannot be overstated.

For further technical guidance, contact a Specifications Committee representative through Jay Millington at jmillington@ossga.com or by telephone at (647) 727-8779.