

# Memorandum

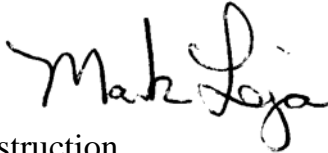
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**To:** DEPUTY DISTRICT DIRECTORS, Construction  
DEPUTY DIVISION CHIEF, Structure Construction  
CONSTRUCTION MANAGERS  
SENIOR CONSTRUCTION ENGINEERS  
RESIDENT ENGINEERS

**Date:** September 18, 2008

**File:** Division of Construction  
CPD 08-7

**From:** MARK LEJA  
Chief  
Division of Construction



**Subject:** Options for Meeting California Test 371 Requirements for Rubberized Hot Mix Asphalt-Gap Graded

This directive addresses those situations when a contractor cannot obtain the contractually required minimum tensile strength ratio (TSR) of 70 on Rubberized Hot Mix Asphalt-Gap Graded (RHMA-G).

When the contract requires the Quality Control and Quality Assurance construction process for RHMA-G, the contractor must provide a hot mix asphalt mix design with a minimum TSR of 70. The TSR is determined by California Test 371, "Method of Test for Resistance of Compacted Bituminous Mixture to Moisture Induced Damage."

If the RHMA-G mix design does not meet the minimum TSR, the contractor must treat the aggregate to achieve the minimum TSR of 70. The contract allows the contractor various methods of treating the RHMA-G to achieve the TSR requirement. Treatment methods for production RHMA-G will depend on the results of California Test 204, "Plasticity Index of Soils," as summarized below. Refer to the contract requirements for details on actual allowable treatment methods.

- If the California Test 371 result on untreated RHMA-G mix does not meet the TSR requirement of 70 and the result of California Test 204 is less than 4, the contractor may treat the RHMA-G with any of the following:
  1. Liquid anti-strip,
  2. Lime Treatment — Dry lime method,
  3. Lime Treatment — Dry lime method with marination,
  4. Lime Treatment — Slurry Method.
- If the California Test 371 result on untreated RHMA-G mix does not meet the TSR requirement of 70 and the result of California Test 204 is greater than 4 but less than 10, the contractor may treat the RHMA-G with any of the following:
  1. Lime Treatment — Dry lime method with marination, or
  2. Lime Treatment — Slurry Method.

The minimum TSR requirement applies to both untreated and treated RHMA-G. Recently, contractors have reported difficulties in achieving the minimum TSR of 70, even after using the specified treatments. When requested by the contractor, the minimum TSR requirement can be waived on those projects where one of the allowable treatment methods will still not result in a minimum TSR of 70. Contractors must still follow the other contract requirements, including treatment, when they cannot meet the current specified TSR requirements.

The use of California Test 371 is a pilot program that Caltrans implemented with the understanding that there may be interim adjustments. It is important that RHMA-G samples and contractor test data be sent to the Transportation Laboratory as well as district materials laboratory. This information will be used to assist the Section 39 Technical Advisory Team in evaluating both California Test 371 and its use with RHMA-G.

As required in the contract special provisions, the contractor must test the RHMA-G using California Test 371 during production start-up and at least once every 5,000 tons of production. This requirement is not to be waived but the results will be “report only” and will not be used in contract compliance decisions.

When the contractor cannot meet the minimum TSR of 70 for treated aggregate, provide the contractor with a contractor-requested, no-cost contract change order. A sample contract change order (CEM-4900), and a sample contract change order memorandum (CEM-4903) are attached to this construction policy directive for reference.

This directive serves as authorization from both the Division of Construction and the Federal Highway Administration for approval of contract change orders to implement the requirements described above. This change does not require that individual contract change order transmittals be sent to the Division of Construction for approval.

For additional information or assistance, please contact Chuck Suszko, Office of Construction Engineering, Division of Construction, at (916) 227-7314.

Attachments:

1. Sample Contract Change Order Memorandum — Contractor’s Options to TSR Requirements for RHMA-G
2. Sample Contract Change Order — Contractor’s Options to TSR Requirements for RHMA-G
3. FHWA — Record of Blanket Prior Approval for Major Contract Change Order