

ORIGINATION FORM

Date: May 7, 2012

Originator: Greg Sholar

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Specification Title: Ground Tire Rubber for Use in Asphalt Rubber Binder

Specification Section, Article, or Subarticle Number: 919

Why does the existing language need to be changed? Continual improvement of the Specification to address Department and Industry needs.

Summary of the changes: 1. Removed the listing of Type A asphalt rubber since it is no longer used.

Are these changes applicable to all Department jobs? If not, what are the restrictions?

These changes are applicable to all Department jobs.

Will these changes result in an increase or decrease in project costs? If yes, what is the estimated change in costs? No identified increases in project costs.

With who have you discussed these changes? Department and Industry staff.

What other offices will be impacted by these changes? Materials.

Are changes needed to the PPM, Design Standards, SDG, CPAM or other manual? None that I am aware of.

Is a Design Bulletin, Construction Memo, or Estimates Bulletin needed? No.

Contact the State Specifications Office for assistance in completing this form.

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M E M O R A N D U M

DATE: May 29, 2012

TO: Specification Review Distribution List

FROM: Trey Tillander, State Specifications Engineer

SUBJECT: Proposed Specification: **9190000 Ground Tire Rubber for Use in Asphalt Rubber Binder.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Greg Sholar of the State Materials Office to update the language for current Department and Industry practice and for formatting.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or to my attention via e-mail at SP965TT or trey.tillander@dot.state.fl.us. Comments received after **June 27, 2012**, may not be considered. Your input is encouraged.

TT/dt
Attachment

**GROUND TIRE RUBBER FOR USE IN ASPHALT RUBBER BINDER.
(REV 5-9-12)**

SECTION 919 (Pages 843 and 844) is deleted and the following substituted:

**SECTION 919
GROUND TIRE RUBBER
FOR USE IN ASPHALT RUBBER BINDER**

919-1 Description.

This ~~Specification~~ *ection* governs ground tire rubber for use in asphalt rubber binders for use in a variety of paving applications.

919-2 General Requirements.

The ground tire rubber shall be produced from tires by an ambient grinding method. The entire process or a final separate grinding process shall be at or above ordinary room temperature. The rubber shall be sufficiently dry so as to be free flowing and to prevent foaming when mixed with asphalt cement. The rubber shall be substantially free from contaminants including fabric, metal, mineral, and other non-rubber substances. Up to 4% (by weight of rubber) of talc or other inert dusting agent, may be added to prevent sticking and caking of the particles.

The ground tire rubber used shall be one of the products listed on the Department's Qualified Products List (QPL). Manufacturers seeking evaluation of their product shall submit an application in accordance with Section 6.

919-3 Physical Requirements.

The physical properties of the ground tire rubber shall be determined in accordance with FM 5-559, and shall meet the following requirements:

- Specific Gravity 1.06 to 1.20
- Moisture ContentMaximum 0.75%
- Metal ContaminantsMaximum 0.01%

Gradation - The gradation shall meet the limits shown in Table- 919-1 for the type of rubber specified.

| Table -919-1 Gradations of Ground Tire Rubber | | | |
|--|---------|---------|---------|
| Sieve Size % Passing | Type -A | Type -B | Type -C |
| No. -16 | --- | --- | 100 |
| No. -30 | --- | 100 | 70-100 |
| No. -50 | 100 | 40-60 | 20-40 |
| No. -100 | 50-80 | --- | --- |

919-4 Chemical Requirements.

The chemical composition of the ground tire rubber shall be determined in accordance with ASTM D 297 and shall meet the following requirements:

| | |
|---------------------------------|-------------|
| Acetone Extract..... | Maximum 25% |
| Rubber Hydrocarbon Content..... | 40 to 55% |
| Ash Content* | Maximum 8% |
| Carbon Black Content..... | 20 to 40% |
| Natural Rubber..... | 16 to 45% |

*10% for Type A rubber

919-5 Packaging and Identification Requirements.

The ground tire rubber shall be supplied in moisture resistant packaging such as either disposable bags or other appropriate bulk containers. Each container or bag of ground tire rubber shall be labeled with the manufacturer's designation for the rubber and the specific type, maximum nominal size, weight and manufacturer's batch or LOT designation.

919-6 Certification Requirements.

The Contractor shall provide the Engineer a certification conforming to the requirements of Section 6 from the manufacturer, confirming that the ground tire rubber meets the requirements of this Section.