

VIRGINIA DEPARTMENT OF TRANSPORTATION

MATERIALS DIVISION

MEMORANDUM

GENERAL SUBJECT: Manual of Instructions Chapter II Section 204.13 & 205	NUMBER: MD 429-20
SPECIFIC SUBJECT: Revise section 204.13 & 205 to more define the sampling procedure's required for sampling Concrete Curing materials.	DATE: 1/13/2020
	SUPERSEDES:
APPROVED:	Charles A. Babish, PE State Materials Engineer Approved: _____

EFFECTIVE DATE

This memorandum is effective June 22, 2020.

PURPOSE

This Memorandum notifies the users of the VDOT's Materials Division's Manual of Instructions, has been revised. This revision has more specific instructions on the sampling of materials listed in section 204.13 and 205 (13).

Changes are **Shaded**

PROCEDURES

Sec. 204.13 Curing Materials and Protective Coatings for Concrete

(a) Curing Materials

(R&B Sec. 220) Materials used for the curing of hydraulic cement concrete shall be sampled as follows:

(1) Waterproof Paper

Waterproof paper shall be sampled ~~the same as outlined in Paragraph (a)(2) above.~~ by obtaining one sheet 4 ft. in length by full width of roll and submitting this to the Central Office Laboratory for test. One sample shall represent each specific lot, or other unit of production in a shipment.

(2) Polyethylene Film

Polyethylene film shall be accepted based upon the Department's approved List 71.

(3) Burlap

Burlap shall be sampled by obtaining one sheet 4 ft. (1 m) by width of roll and submitting this to the Central Office Laboratory for test. Total number of samples from table below shall represent each specific lot, or other unit of production in a shipment.

Sampling-In deciding how many samples are needed for each shipment, VDOT uses a modified chart from AASHTO M182. Please see below:

Number of Rolls	Number of Samples
8 or less	2
9-15	3
16-40	4
41 or greater	5

A sample will be defined as one piece at least 4 ft. in length by full width of roll.

A packaging envelope may be used for sample shipment. Each sample shall be packed and marked, in accordance with Sec. 203, using Form TL-10, as outlined in Sec. 800.

Inspection—Each of the rolls selected shall be visually inspect for cleanliness and evenly woven. Examine the burlap for visual defects that would impair its suitability for use. Cuts; tears; broken or missing yarns; thin, open, or weak places; uneven weaving; and grease spots or stains shall be noted.

Lot-Unless otherwise specified, for purposes of inspection and tests a lot is the same class of material presented at one time or each shipment.

(4) Liquid Membrane Seal

~~Liquid membrane seal shall be shaken or stirred thoroughly in the container, much as described for paint in Sec. 202.24, before the sample is taken. A one quart (one liter) sample shall be taken at random from a single container representing each specific lot, batch, or other unit of production in a shipment, provided that no sample shall represent more than 5000 gals (20,000 liters).~~

When sampling liquid membrane seal, the batch number must be on each container and shall be checked to verify the number matches the batch number being sampled. A batch is defined as the amount of material that can be made at one time and kept in one vat. The total quantity of liquid seal shall also be verified to the batch number being sampled. The total quantity cannot be more than can be produced in one vat at a time. Only containers on hand can be used to figure the total quantity. One container must be chosen from the containers on hand. If sampling from a drum or large tote, the liquid seal must be shaken or stirred thoroughly in the container before sampling. If the samples are at a manufacture's facility, the producer may decide the best way to agitate the sample. A one-quart sample shall be taken from the randomly chosen container. This procedure must be done for each batch being sampled. If sampling from five-gallon buckets, one five-gallon bucket may be chosen instead of a quart container to send so there is less of an issue with getting a representative sample. The most current SDS must accompany the sample being sent in for testing.

Each sample shall be packed and marked, in accordance with Sec. 203, using Form TL-10, as outlined in Sec. 800. A metal container, properly capped, may be used for sample shipment to the Central Office Laboratory.

(5) Monomolecular Film

Chemicals, such as monomolecular film, used in the placement of concrete to prevent or reduce evaporation of curing water from the concrete surface, will require no sampling, testing, or certification, ~~and may be accepted on modified inspection, as outlined in Sec. 207.~~ Satisfactory job performance will be considered as proof of acceptance.

(6) Reports

Laboratory tests and inspections of curing materials will be reported on Forms TL-24 and TL-109 respectively, as outlined in Sec. 800.

(b) Protective Coatings

Materials used for the protection of hydraulic cement concrete surfaces shall be accepted as follows:

(1) Silicone Treatment

Silicone spray treatment, applied to hydraulic cement concrete surfaces where unpainted ASTM A588 steel is used, shall be sampled by obtaining a one quart (one liter) sample of the treatment, either at the source or at the job site. The sample shall be submitted to the Central Office Laboratory for test in a clean, airtight, metal or glass container. One sample per job will be sufficient.

The sample shall be packed and marked, in accordance with Sec. 203, using Form TL-10, as outlined in Sec. 800.

(2) Spray-On Surface Finish

Materials used as spray-on surface finishes for hydraulic cement concrete surfaces are approved for use by ~~an~~ approved list 30. Inspection, other than visual, is not required in the field, and sampling will not be necessary. ~~See Sec. 207 for modified inspection procedures.~~

(3) Reports

Laboratory tests and inspections of silicone treatments will be reported on Forms TL-47 and TL-109 respectively, as outlined in Sec. 800.

NOTES

Section 205 (13) will reflect these changes.

REFERENCES

COPY DISTRIBUTION:

Deputy Chief Engineer
Division Administrators
District Administrators
District Location & Design Engineers
District Construction Engineers
District Maintenance Engineers
District Bridge Engineers
District Traffic Engineers

VDOT Resident Engineers
Federal Highway Administration
Virginia Ready Mix Association
Precast Concrete Association of Virginia
Virginia Transportation Construction Alliance
Virginia Asphalt Association
American Concrete Paving Association Mid-Atlantic Chapter
Old Dominion Highway Contractors Association