

Section 4105. Liquid Curing Compounds

4105.01 GENERAL REQUIREMENTS.

Comply with AASHTO M 148 and the following requirements.

4105.02 SPRAYABILITY.

Use compounds of a consistency that they can be readily applied by spraying to a uniform coating at a material temperature above 40°F (4°C).

4105.03 MOISTURE RETENTION.

Efficiency index of the material shall not be less than 95.0% when tested according to Office of Materials Test Method No. Iowa 901. Material showing moisture loss of less than 1.0% of the quantity of water remaining in the test specimen at the time the curing material is applied will also be acceptable.

4105.04 DRYING TIME.

Use liquid curing compounds that:

- Dry to the touch in no more than 4 hours, and
- Do not track off the concrete when walked upon after 12 hours.

4105.05 WHITE PIGMENTED COMPOUNDS.

- A. Use compounds consisting of finely ground white pigment and vehicle, ready mixed for use without alteration.
- B. Ensure the pigment does not:
 - Settle excessively or cake in the container, and
 - Thicken in storage to cause a change in consistency which may result in a nonuniform spray.
- C. Use a compound that after being sprayed on a test slab and drying has an apparent daylight reflectance no less than 60% relative to magnesium oxide.
- D. Use an application rate of no less than 0.067 gallon per square yard (0.3 L/m²) (15 square yards per gallon (3.3 m²/L)).
- E. Agitate the compound just prior to it being removed from the container. Agitate it continuously during application.

4105.06 DARK COLORED COMPOUNDS.

Use asphalt emulsion or asphalt cut back with a volatile solvent. Use a mixture containing no less than 50.0% asphalt. Use an application rate of no less than 0.08 gallon per square yard (0.36 L/m²) (12.5 square yards per gallon (2.8 m²/L)).

4105.07 CLEAR COMPOUNDS.

Apply the following in lieu of other requirements of this section:

- A. Use clear liquid membrane curing compounds complying with the requirements of AASHTO M 148, Type 1-D, Class A. Use only one type of compound on a structure. Do not use different compounds on the same structure.
- B. Inspection and acceptance of clear compounds for curing will be according to [Materials I.M. 405.07](#).

4105.08 CARRYOVER STOCK.

- A. Approvals of individual lots of curing compound are valid for the year in which the compound is manufactured.
- B. Lots of 5 barrels (1000 L) or more of white pigmented compound which have been carried over the winter will be retested if stored in a heated warehouse.
- C. Do not use carryover lots of white pigmented compound less than 5 barrels (1000 L).
- D. Do not use carryover lots of curing compounds which have been frozen.