



WHITE PIGMENTED CURING COMPOUND IN BULK STORAGE

GENERAL

White pigmented curing compound in bulk storage shall meet the requirements of [Section 4105](#). The material shall be stored in clean bulk containers. The containers shall be capable of keeping the material well-mixed without damaging the emulsified curing compound. Diaphragm pumps and mechanical agitators are examples of acceptable means of mixing; gear pumps and other high shear devices are unacceptable.

Each day the curing compound is used, the bulk tank of material shall be well mixed prior to application as described below. The material does not need to be mixed on days it is not used. The bulk tank shall not go longer than 4 days without mixing.

The batch number shall be clearly marked on the bulk tank at all times. Different batches of cure may be mixed in the same bulk tank provided both batches of cure are acceptable. Cure from two different manufacturers shall not be mixed in the same bulk tank.

Documentation in the form of an invoice or identification list from the supplier shall be furnished to the project engineer at the time of delivery to the project. This identification list shall contain the project number, county, contractor, brand, batch number of curing compound, Ames Lab Number representing the batch test result and the date delivered to the project.

Acceptance of material will be based on successful completion of tests prior to shipment. Random monitor samples may be taken at any time. It is recommended that the project inspector obtain a monitor sample every two months the material remains on a job site without being used up.

PRE-SHIPMENT SAMPLING

Prior to shipment, an Iowa DOT employee, or designated representative shall witness the sampling of each batch of cure to be supplied to Iowa DOT projects. The mixing and sampling techniques shall be according to manufacturer recommendations. A one-quart (one-liter) sample shall be obtained and sent to the Central Materials Laboratory. Acceptance of the batch will be based on satisfactory test results.

MONITOR SAMPLING

A monitor sample may be obtained at any time. Prior to sampling, the bulk tank shall be well mixed. For tanks with mechanical agitating paddles, the material shall be mixed for 15 minutes, but not more than 30 minutes. This is true regardless of the amount of material in the tank.

For tanks with circulating pumps, the material shall be drawn from the bottom of the tank and pumped to the top at a point furthest from where the material is drawn. The material shall be pumped for such a time that the material in the tank is turned over once but not more than two times.

For example: If a 5000-gallon (20,000-liter) tank is full and has a pump rated at 200 gallons (800 liters) per minute, it would take 25 minutes to turn the tank over once. $5000 \text{ gallons} \div 200 \text{ gallons (20,000 liters} \div 800 \text{ liters) per minute} = 25 \text{ minutes}$. Therefore the tank should be mixed at least 25 minutes, but no longer than 50 minutes. If the tank was nearly empty with only 1000 gallons (4000 liters) of material, the tank should be mixed between 5 and 10 minutes. $1000 \text{ gallons} \div 200 \text{ gallons per minute} = 5 \text{ minutes}$ or $4000 \text{ liters} \div 800 \text{ liters per minute} = 5 \text{ minutes}$.

Samples should be taken from the discharge hose on the bulk tank. At least 5 gallons (20 liters) of material should flow through the hoses to ensure that freshly mixed material is being sampled. A one-quart (one-liter) sample should be obtained and sent to the Central Materials Laboratory. Non-compliant test results on any monitor sample shall be sufficient cause for rejection of a batch.