

2217 - MULTI-COMPONENT LIQUID PAVEMENT MARKING MATERIAL

SECTION 2217

MULTI-COMPONENT LIQUID PAVEMENT MARKING MATERIAL

2217.1 DESCRIPTION

This specification covers multi-component, liquid materials suitable for use as retroreflecting pavement markings on portland cement concrete or asphalt pavements*. Glass beads or other reflective elements are dropped at a specified rate on the surface of the liquid material immediately after it is applied to the pavement surface. Upon curing, it produces an adherent retroreflective marking of specified thickness and width, capable of resisting deformation by traffic.

*These can be modified urethanes, polyureas, methylmethacrylates, special epoxies or other applicable materials.

2217.2 REQUIREMENTS

a. Provide the material in white and yellow. For yellow, meet the following minimum chromaticity coordinates:

TABLE 2217-1: CHROMATICITY COORDINATES								
COLOR	1		2		3		4	
	X	Y	X	Y	X	Y	X	Y
YELLOW	0.461	0.445	0.476	0.424	0.520	0.450	0.495	0.475

b. Provide material that is a homogeneous blend of liquid resins, pigments, and fillers and is also free of lead and other toxic heavy metals.

c. Provide one of the above-mentioned liquid marking materials or a material as approved by the KDOT. The burden of proof of a product rests with the producer. Provide all supporting technical data, including test reports, field test data, etc. for consideration of the product.

d. Glass Beads For Drop-On Application (double drop system).

(1) For the first drop, provide large beads, which are compatible with the liquid system, and comply with AASHTO M 247 except with this gradation:

TABLE 2217-2: GLASS BEADS					
Percent Passing - Square Mesh Sieves					
No. 10	No. 12	No. 14	No. 16	No. 18	No. 20
100	95-100	80-95	10-40	0-5	0-2

(2) For the second drop, provide regular beads that are specifically manufactured to be compatible with the liquid system, and comply with AASHTO M 247, Type I.

(3) Coat both types of beads with a moisture resistant coating and an adhesion promoting coating that is compatible with the marking system.

(4) Other reflective media systems may be used with the approval of the KDOT.

e. **Verification testing.** Verification samples are not required for the liquid pavement marking materials. The Engineer will take (2) one-quart samples of glass beads used on the project. Forward all samples to MRC for testing.

2217.3 METHODS OF TEST

None required.

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2217.4 PREQUALIFICATION

- a. Successful performance on a KDOT test project.
- b. The Bureau of Materials and Research will maintain a list of qualified materials. Products will remain on the prequalified list as long as field performance is satisfactory. Any changes in formulation must be reported to the Engineer of Tests for review and evaluation to determine if re-qualification is necessary.

2217.5 BASIS OF ACCEPTANCE

- a. **Multi-Component Liquid Material**
 - (1) Material will be accepted on the basis of product name and manufacturer.
 - (2) Receipt and approval of a Type C certification as specified in **DIVISION 2600** for each lot of material used.
 - (3) Visual observation of performance on the project.
- b. **Glass Beads/Reflective Elements for Drop-on Application.** Receipt and approval of a Type D certification as specified in **DIVISION 2600**.