

CRD-C 300-90

**SPECIFICATIONS FOR MEMBRANE-FORMING COMPOUNDS
FOR CURING CONCRETE**

1. Scope

1.1 These specifications cover liquid compounds proposed for curing concrete by surface application resulting in the formation of a membrane.

2. Composition

2.1 The membrane-forming compound may be composed of any selection of materials produced by any process which will yield a product of sprayable consistency at temperatures above 40 F, nontoxic in effect, and which will develop the qualities stipulated in the following paragraphs.

2.2 The solvent used in formulating the compound, if of the mineral spirits or kerosene type, shall conform to the requirement of CRD-C 316 for the grade of solvent suitable for use under air pollution regulations. (Note.)

Note.- When a new source of membrane-forming compound is sampled or in the case of established sources at intervals not exceeding six months when curing compound is sampled, the inspector will obtain a sample consisting of approximately one quart of the materials such as mineral spirits or kerosene for gas chromatographic determination.

3. Requirements

3.1 A compound will be tested for compliance with the physical requirements shown in Table 1. Sampling, packaging, marking, and delivery of compounds will be in accordance with CRD-C 301.

4. Time Limit

4.1 Material that has been sampled, tested, and found to comply with the provisions of these specifications and that remains in storage prior to shipment to a project for more than the periods of time stipulated below after sampling shall not be shipped unless it has been reapproved by the laboratory. The stipulated periods of time are:

Pigmented compounds: 4 months

Nonpigmented compounds: 9 months

5. Report

5.1 The test data will be reported on ENG Form 6010-R (Fig 1). The information on "Description of Material" will be that provided to the laboratory at the time the samples are submitted for test.

Table 1

Property	Requirement	Test Method
Unit moisture loss (through membrane)	Not more than 0.031 g per sq cm after 7 days exposure to a 10-mph current of air at 100 F and a 30% R.H., when the compound is applied at a coverage of 200 sq ft per gal.	CRD-C 302
Sprayability ^a	At temperatures above 40 F.	CRD-C 302
Drying time	Dry to touch in not more than 4 hr.	CRD-C 311
Flash point	Not less than 75 F.	CRD-C 303 ^c and 308 ^d
Reflectance ^b	Infrared, not less than 65%.	CRD-C 311

^aThis requirement may be waived by the Contracting Officer when conditions warrant.

^bThis requirement will be waived for nonpigmented compound.

^cFor use with nonpigmented compounds.

^dFor use with pigmented compounds.

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5.2 If the compound under test meets all test requirements, the test report will state:

"This sample meets the requirements of the laboratory tests."

5.3 If the samples of the compounds do not meet the test requirements, the test report will state:

"This sample does not meet the requirements of the laboratory test for..." (Note).

Note.- Depending on which of the requirements of the laboratory tests have been complied with by the sample, additional

sentences such as the following may be added:

"The material was not sprayable at the temperature of 40 ± 3 F as required by Method CRD-C 302."

"The film formed by the material was not dry to touch within four hours when tested as required by Method CRD-C-311."

5.4 Copies of the completed test report (ENG Form 6010-R) will be furnished to the Contracting Officer. The District Engineer supervising sampling and shipping will be advised whether or not the samples have met the requirements of the laboratory tests, and if so, the laboratory acceptance symbols that have been assigned.

FROM: CORPS OF ENGINEERS U. S. ARMY _____ DIVISION		REPORT OF TESTS OF MEMBRANE-FORMING COMPOUND FOR CURING CONCRETE (CRD-C 300)		ADDRESS:	
SYMBOL		PROJECT		DATE	
				INITIALS	
DESCRIPTION OF MATERIAL					
MANUFACTURER			BRAND NAME AND NUMBER		
LOT NUMBER		DATE SAMPLED		QUANTITY REPRESENTED GAL	
SAMPLED AT		SAMPLED BY		CONSIGNEE TO	
NO. SAMPLES		RECEIVED AT LABORATORY		REPORT SUBMITTED	
TEST DATA					
TEST NO. (CRD-C)	TEST	RESULTS	PERMISSIBLE LIMIT		
302	UNIT MOISTURE LOSS, IN G. SQ CM (COVERAGE: 200 SQ FT. GAL) 7 DAYS		≤ 0.031		
302	SPRAYABILITY		SPRAYABLE		
303, 306	FLASH POINT, DEG F		≥ 75		
311	DRY TO TOUCH, HR		≤ 4		
311	REFLECTANCE, INFRARED, %		≥ 85		
DRUMS CONTAINING MATERIAL REPRESENTED BY THIS SAMPLE MUST BE MARKED WITH SYMBOL NOS. _____					
REMARKS					

Fig. 1