

**Section 4140. Emulsified Asphalt**

**4140.01 GENERAL REQUIREMENTS.**

1. Meet the requirements of AASHTO M 140, M 208, and M 316 for the grade required with the following modifications, unless specified otherwise:

	<b>Min.</b>	<b>Max Percent</b>
Sieve Test	-	0.3

2. Perform inspection and acceptance of emulsified asphalt according to Materials [I.M. 437](#).

**4140.02 EMULSIFIED ASPHALT USED FOR WORK DESCRIBED IN SECTIONS 2307 AND 2544.**

For work described in [Sections 2307](#) and [2544](#), comply with Paragraphs A, B, and C below.

**A. Aggregate Compatibility.**

Provide emulsified asphalt compatible with project aggregate when tested according to Office of Materials Test Method No. Iowa No. 630.

**B. Absolute Viscosity.**

Between 600 poises (60 Pa·s) and 1200 poises (120 Pa·s) when tested according to Iowa DOT Materials Laboratory Test No. 622 in lieu of a penetration test.

**C. Modification for CRS-2P Emulsion.**

**Table 4140.02-1: Modification for CRS-2P Emulsion**

	<b>CRS-2P</b>		<b>CRS-2</b>	
	<b>Min.</b>	<b>Max.</b>	<b>Min.</b>	<b>Max.</b>
Storage Stability (note 1) Cure Test (note 2)	Passes Passes			
Distillation (note 3): Oil Distillate, by Volume of Emulsion, %	-	1.0		1.0
Tests on Residue from Distillation Test: Penetration @ 77°F (25°C) @ 0.1 mm Ductility @ 39°F (4°C) 5 cm/min., cm	100 30 (300)	150 -	100	150
Elastic Recovery (Materials Method Test No. Iowa 631)	55	-		
Solubility in trichloroethylene, %	delete		97.5	
<p>Note 1: Examine the CRS-2P storage stability test sample after it has been allowed to stand undisturbed for 24 hours. The surface of the test sample must show no white, milky colored substance, but is to be homogeneous brown clear throughout.</p> <p>Note 2: The cure test is performed as follows: Pour approximately 1 gram of CRS-2P emulsion onto a metal surface (lid of a 3 ounce (90 ml) ointment tin). Allow the test sample to cure at temperatures of at least 80°F (27°C) under a heat light for 4 hours. The outdoors sunlight may be used as a testing site. After the 4 hour curing period, the CRS-2P emulsion must show no tackiness or tendency to stick to the fingers when pressed.</p> <p>Note 3: The distillation test for CRS-2P emulsion is to comply with AASHTO T 59, 8-12 except the second sentence in 11.5 is to be deleted and replaced with the following: ensure the distillation temperature is what the emulsion manufacturer recommends.</p>				