

NAVISTAR, INC.		
Material, Parts, and Process Specifications (MPAPS)	NUMBER: MPAPS BT-29	
	Former Designation: CEMS BT-29	
TITLE: Test for Leak Stoppage of Cooling System Stopleak Compounds	CURRENT REV No.: 1408	DATE: Aug 2014
WRITTEN/EDITED BY: Materials Engineering	APPROVED BY: Materials Engineering	SUPERSEDES: CEMS BT-29 - August 2009
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<i>This specification may involve hazardous materials, equipment, and procedures. This specification does not purport to address all of the safety issues associated with its use. The user is responsible to consult appropriate safety and health practices and to determine the applicability of regulatory limits prior to use.</i>		
Change Notice: Updated to new MPAPS format; editorial changes.		

1.0 APPLICATION

This method covers a test procedure for determining the ability of cooling system stopleak compounds to temporarily stop leaks.

2.0 SCOPE

This test method describes the test procedure for evaluating stopleak compounds.

3.0 APPARATUS

3.1 Test container: a one-quart cylindrical tin-coated steel can, such as a paint can, with four 1/32-inch diameter holes drilled at approximately one inch from the bottom of the can and equally spaced around its perimeter. All burrs are to be removed from the edges of the holes.

3.1 Electric stirrer, variable speed having a two-blade impeller 1-3/4 inches in diameter

3.2 Pan or tray to collect draining

3.3 Wooden dowel rod or pencil, 1/4 inch diameter by 6 inches long

3.4 Pyrex beaker, 1000 milliliters

3.5 Graduated cylinder, 1000 milliliters

3.6 Balance capable of weighing to a sensitivity of 0.1 gram

3.7 Hot plate or laboratory burner

4.0 MATERIAL

4.1 Test Fluid A: Use a representative sample based on a mixture of one pellet (Type 1) or one container (Type 2) and 20 quarts (640 ounces) of distilled water.

4.2 Test Fluid B: Use a representative sample based on a mixture of one pellet (Type 1) or one container (type 2) and 20 quarts (640 ounces) of a 50/50 mixture of distilled water and MPAPS B-1, Coolant Concentrate, Ethylene Glycol Base.

5.0 PROCEDURE

5.1 Heat 800 milliliters each of Test Fluids A and B to 180 ± 5 degrees Fahrenheit. Thoroughly mix until stopleak is completely dispersed.

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5.2 Pour the hot mixture into the test container, which is suspended over the pan or tray, and immediately lower the stirrer to within one inch of the bottom of the container and stir at a speed of 1000 to 1500 revolutions per minute.

5.3 Observe the time required to completely stop leakage from all holes (disregard occasional seepage).

5.4 At the end of 1-minute stirring, sharply strike the side of the test container with the wooden rod at approximately one inch from the bottom. Observe the time required to stop all leakage (again disregard all occasional seepage).

5.5 Continue stirring for 5 minutes observing for leaks other than occasional seepage.

5.6 At the end of the 5-minute stirring, again sharply strike the side of the test container with the wooden rod and observe the time it takes to re-stop leakage from all four holes.

6.0 REPORT

Report the time to stop leaks in seconds for each test fluid mixture --

After:

- 6.1 Start of stirring;
- 6.2 1 minute of stirring;
- 6.3 5 minutes of stirring.

7.0 TECHNICAL INFORMATION

For further information related to the technical content of this specification, contact:	Suppliers may purchase controlled copies of this specification by contacting:
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