

NAVISTAR, INC.		
Material, Parts, and Process Specifications (MPAPS)		NUMBER: MPAPS BT-26
		Former Designation: CEMS BT-26
TITLE: Solid Matter Test		CURRENT REV No.: 1408
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WRITTEN/EDITED BY: Materials Engineering	APPROVED BY: Materials Engineering	SUPERSEDES: CEMS BT-26 - 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 SCOPE

This method covers a test procedure for determining the solid matter in engine cooling system stopleak compounds.

2.0 APPARATUS

- 2.1 Mortar and pestle.
- 2.2 100-milliliter centrifuge tube (ASTM D1796).
- 2.3 Stopper to fit 100-milliliter centrifuge tube.
- 2.4 Balance capable of weighing to a sensitivity of 0.1 grams.
- 2.5 Centrifuge capable of spinning 700 rcf at the tips of the tubes (ASTM D1796).
- 2.6 Oven capable of maintaining a temperature of 212 ± 2 °F.

3.0 MATERIALS

- 3.1 Distilled water.
- 3.2 Methyl alcohol.

4.0 PROCEDURE

- 4.1 Place approximately 25 grams of a representative sample of the stopleak compound, which has previously been crushed in a mortar and pestle, into a tared centrifuge tube and weight to the nearest 0.1 gram.
- 4.2 Add distilled water containing 10 percent by volume of methyl alcohol to the 100 milliliter mark on the centrifuge tube. Cap the tube and thoroughly mix the contents. Remove the cap and place the tube in the centrifuge.
- 4.3 Centrifuge 30 minutes at 700 rcf at the tips of the tubes and decant the supernatant fluid.
- 4.4 Break up the solid matter and repeat steps 4.2 and 4.3, three times.
- 4.5 Decant the supernatant fluid and dry the tube and contents over night in an oven maintained at 212 ± 2 °F.
- 4.6 Cool to room temperature and weigh the tube and contents to the nearest 0.1 gram. Retain the solid matter for test of ash content of solid matter, MPAPS Test Method BT-27.

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5.0 REPORT

Calculate the percent solid matter as follows:

$$\text{Percent solid matter} = 100 \frac{R-T}{S-T}$$

where

R = weight of tube and solid matter

S = weight of tube and sample

T = weight of the empty tube

Report the solid matter in percent by weight.

6.0 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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