Ford Motor Company

FORD LABORATORY TEST METHOD BJ 128-02

RUST PREVENTIVE COMPOUNDS - CREEPING POWER

Application

These test methods are used to determine the creeping power (ability to penetrate) of corrosion preventive materials into automotive cavities such as door hinge flanges and spot welded joints.

Method A: Is used to measure the creeping power in a gap of 100 micrometer width. Method A shall be used if no method is detailed in the material specification.

Method B: Is used for the visual evaluation of the creeping characteristics of cavity protectives penetrating into a wedge-shaped gap.

Apparatus Required

Motorized Stirrer

Capable of stirring a wax-type rust-preventive compound at 1500 cycles per minute.

Spacers

100 micrometer thick (e.g. 5 mm wide aluminum foil stripes).

Flat Bowl, approximately 3 x 15 cm wide, or approximately 15 mm ∅.

Materials Required

Glass Plates

Two high gloss glass plates, approximately 110 x 110 mm of 3 mm or greater thickness. The glass surface must be clean and dry.

If glass plates are re-used, they must be completely degreased with an applicable solvent.

Clamps

Or comparable means for fixing the glass plates together.

Fixture

A fixture to hold the test assemblies in a vertical position.

Date	Action	Revisions
2001 07 25	Revised	Editorial – no technical change A. Cockman
1998 08 12		

Copyright © 2001, Ford Global Technologies, Inc.

Copyright by the Ford Motor Company

Fri Aug 26 22:31:43 2016

Full document details: FORD FLTM BJ 128-02 2001

AVA Documents Document Sharing Hub

Conditioning and Test Conditions

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2° C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

Procedure

One test consists of at least two assemblies per test method.

Note: Test assemblies must be handled carefully. Any pressure would change the gap width and forge the test result.

1. Prepare test assemblies according to Figure 1 and fix them with the clamps. The measuring area shall be approximately 10 cm wide (see Figure 2).

2. Stir the rust-preventive material for 15 minutes at 1500 cycles per minute. Avoid air to be mixed into the material.

3. Condition the test equipment to the specified temperature for a minimum of 4 hours (if no specific temperature is required, test at room temperature).

   The wax must not be heated/cooled.

   Remove the equipment from the oven/cold store immediately before steps 4 and 5.

   The test assembly shall cool down/warm up to room temperature during testing time.

4. Fill the bowl with the test material up to approximately 1 cm level.

5. Place the test assemblies vertically into the bowl and fix them (see Figure 2).

6. After 3 hours remove the test assemblies and mark starting point and creeping line (see Figure 3).

Copyright © 2001, Ford Global Technologies, Inc.

Copyright by the Ford Motor Company

Fri Aug 26 22:31:43 2016

Full document details: FORD FLTM BJ 128-02 2001

AVA Documents Document Sharing Hub