



Test to Determine Effect of Antichip on Adjacent Painted Metal

1 Introduction

Note: Nothing in this standard supersedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Purpose. This test procedure is used to determine if there are any volatile components coming off during the bake of an antichip material that adversely affect the adhesion of the topcoat material over the metal immediately adjacent to the antichip.

1.2 Applicability. Primarily for Paint Shop applied sprayable rocker antichip materials. May be used for any other Paint Shop applied sealer materials as required.

1.3 Remarks. This test procedure shall be used during the “generic validation” of all antichip materials. In addition it should be conducted as part of “plant specific” layering validation as well.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

GMW3005	GMW15978
GMW14829	GMW16680

3 Resources

3.1 Facilities.

3.1.1 Calibration. The test facilities and equipment shall be in good working order and shall have a valid calibration label.

3.1.2 Alternatives. Alternative test facilities and equipment may also be used. However, all measuring variables as specified in this standard shall be determined correctly with respect to their physical definition.

3.2 Equipment.

3.2.1 Circulation oven, capable of maintaining a set temperature within ± 3 °C.

3.2.2 Cartridge gun or container with test material.

3.2.3 Spatula and wide plastic finesse skive.

3.2.4 Quantity of 100 mm x 300 mm e-coated test panels.

3.2.5 Masking tape 25 mm and 50 mm wide.

3.3 Test Vehicle/Test Piece.

3.3.1 Number of Test Samples. For initial approval, the compatibility shall be determined with a minimum of three (3) test samples per paint system and baking/aging condition.

3.4 Test Time. Not applicable.

3.5 Test Required Information. Not applicable.

3.6 Personnel/Skills. Tests can be performed by laboratory personnel certified in the testing areas of adhesives and sealers.

4 Procedure

4.1 Preparation.

4.1.1 Apply masking tape to a 100 mm x 300 mm panel in such a fashion that a 50 mm section of panel is left exposed. This section should be set up “off center” as pictured in Figure 1:



Figure 1: “Taped Test Panel” for Bead Masking and Location

4.1.2 Take four (4) of the test panels and create two (2) “material spacers” by taping two (2) panels together as shown in Figure 2:



Figure 2: One of Two Metal “Spacer Panels” Required for Testing

4.1.3 Take the “material spacer panels” and lay them on top of the “taped test panel” as shown in Figure 3. There should be some of the tape on the “taped test panel” left exposed so that a clean line of material is left when the tape is removed. Tape the “spacer panels” securely so that they will not move.

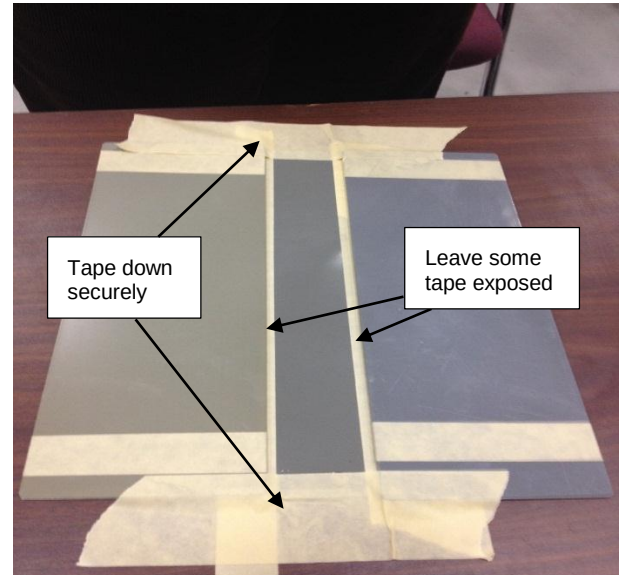


Figure 3: Test Setup Prior to Applying Antichip Material

4.1.4 Using spatula, apply material roughly along the length of the exposed taped area with a heavier mound of material at one end. Use the wide plastic finesse skive riding along the top of the “spacer panels” to draw down the material along the whole length of the exposed area. This should produce a nice wide, smooth bead of material about 3 mm thick as shown in Figure 4:

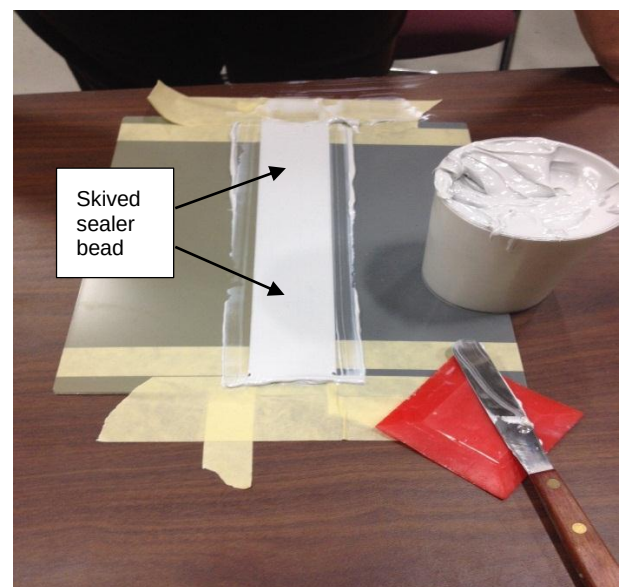


Figure 4: Test Setup Showing “Skived” Bead of Antichip

4.1.5 Carefully remove the spacer panels and all surrounding tape from around the drawdown bead.