

MATERIALS / PAINTS

FNHA-2-J-001.01

PANEL OR PART PREPARATION

1. SCOPE

1.1 This procedure is for evaluating a coating or coating system on panels or parts prepared with the materials and paint pre-treatment of the facility where production is planned.

1.2 Bonderite 1000 panels will be used as controls to clarify paint and process capability as noted on specific test procedures. Production panels will be the basis for test approval.

2. REFERENCE STANDARDS

ASTM D609 - Cold Rolled Steel Panel Preparation
86513228(FNHA-2-M-095.20) - Pressure Sensitive Markings (Decals) - Application Information and Instructions

3. MATERIALS & EQUIPMENT

3.1 Bonderite 1000 test panels (4"x 12" x .032")

3.2 Test panels, 4" x 12", representative of production material. If there is not a representative production substrate, 4" x 12" test panels of #20 gauge cold rolled and #16 hot rolled steel will be used. All panels will be cleaned and phosphated in the appropriate plant's pre-paint system.

3.3 Cold rolled 3" x 6" x .032", Bonderite 1000 or equivalent panels for weatherometer test.

3.4 Coatings will be applied using plant spray application apparatus or equivalent other than dip coatings which are done in a container adequately sized for parts and panels.

3.5 Small production test parts for dip paint application to supplement test panels.

3.6 Laboratory paint application equipment equivalent to production facilities and a circulating convection oven capable of duplicating production times and temperatures. This equipment is required when paint will be applied in the laboratory.

3.7 For laboratory dip tests, a motorized device is required to withdraw test panels or parts from the dip reservoir.

3.8 Aluminum panels (3" x 6" x .025"). Q panels, A-36 or equivalent.

3.9 Double edge hard polyethylene squeegee with smooth straight edges.

4. PROCEDURE

4.1 SPRAY APPLICATION

4.1.1 Hang panels in a panel rack or individually with a two-point suspension to present a stable surface for cleaning and phosphating. When applicable, hang parts in a similar manner and process through the pre-paint system.

4.1.2 Parts and/or panels may proceed through the entire system for painting, flash-off, oven drying, etc., or be removed for paint application, flash off, drying, etc., in the New Holland Finishing Laboratory. A 15 minute flash off period and $85^{\circ} \pm 3^{\circ}\text{C}$ ($185^{\circ} \pm 3^{\circ}\text{F}$) force dry temperature will be used. Flash off times, temperature, etc. may be changed if plant conditions differ.

					NAME	STD PANEL/PART PREP		
					 NEW HOLLAND		ENGINEERING SPECIFICATION	
ALL	C	RLF	110274	JUL 97			FRAME 1	OF 3
ALL	A	RE	104739	940216			PART NUMBER	
FRAME NO.	REV	BY	ECN NO.	DATE				
APP.	DRAWN		IE	JAN 94	THE INFORMATION HEREON IS THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF NEW HOLLAND NORTH AMERICA, INC. AND/OR NEW HOLLAND CANADA, LTD. ANY USE, EXCEPT THAT FOR WHICH IT MAY BE LOANED, IS PROHIBITED.			
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4.1.3 All paint will be adjusted to proper temperature, viscosity pressure, etc., per manufacturer's specification prior to application.

4.1.4 Paints(s) will be applied within eight hours of preparation of parts or panels and dry film thickness must be within specification when applied over primer (2.3-3.2 mils total) or direct to metal (1.5-2.0 mils).

NOTE: All spray prepared panels will be painted using a primer and topcoat unless specified otherwise

4.1.5 Unless otherwise noted on specific test procedures, all test specimens will age at least 14 days at room temperature ($25^{\circ} \pm 5^{\circ}\text{C}$) in a rack to allow air circulation around each test specimen prior to testing.

4.2 DIP APPLICATION

4.2.1 Hang panels in a panel rack or individually with a two-point suspension to present a stable surface for cleaning and phosphating. When applicable, hang parts in a similar manner and process through the pre-paint system and remove prior to testing.

4.2.2 Dip paint should be in a container of adequate size to accommodate test panels and sample parts. Paint must be well agitated and free of air bubbles and at $25^{\circ} \pm 3^{\circ}\text{C}$.

4.2.3 Hang test parts and panels and immerse in paint for 5-10 seconds. Withdraw smoothly and evenly at a rate of 1" per second.

NOTE: All dip applied panels will be prepared using no primer. The dip application may use one applied coat or a double dip depending on end use.

4.2.4 Hang test specimens at room temperature ($25^{\circ} \pm 5^{\circ}\text{C}$) and allow 15 minutes for run-off and flash-off prior to placing panels in the production paint oven for the appropriate drying schedule per 4.1.2.

4.2.5 Clean and fill container or fill a second container with production dip paint and prepare panels and parts as 4.2.3.

4.2.6 Unless otherwise noted on specific test procedures, all but specimens will age at least 14 days at room temperature ($25^{\circ} \pm 5^{\circ}\text{C}$) in a rack to allow air circulation around each test specimen prior to testing.

4.2.7 Compare dry parts and panels prepared with production paint versus parts and panels prepared with test paint for appearance, hiding and film build. (Dip coating film thickness is 1.0 -2.0 mils per coat.)

DIP APPLICATION ALTERNATIVE FOR SCREENING PURPOSES ONLY

4.2.8 Repeat step 4.2.1 and hold panels at 45° and parts vertically.

4.2.9 Pour paint over panels and parts and repeat step 4.2.4. Repeat process with similar parts and panels using production dip paint as a control.

4.2.10 Compare parts and panels prepared with test paint and production paint for appearance, hiding and film build.

4.2.11 This procedure is used only to evaluate a relatively small quantity of paint and is only for comparative purposes. All testing will be done on parts and panels prepared per section 4.2.1 through 4.2.7.

4.3 DECAL EVALUATION PANELS

4.3.1 Panels will be made using the plant system for painting, flash-off, oven drying, etc., or be painted in the New Holland Finishing Laboratory.

NOTE: Aluminum panels (3" x 6" x .025") may be used without paint or primer for QUV Accelerated Weathering Testing of decals.

 NEW HOLLAND	NAME			PART NUMBER		
	STD PANEL/PART PREP			86507636		
ENGINEERING SPECIFICATION			REV. C	FRAME 2	OF 3	 Document Sharing Hub