

MATERIALS / PAINTS

FNHA-2-J-001.15

CHEMICAL EXPOSURE

1. SCOPE

This procedure is used to determine the resistance of a cured paint film or a pressure sensitive marking (decal) to various chemicals in the farm implement environment.

2. REFERENCE STANDARDS

ASTM D4752 - Test Method by Solvent Rub.
86507636(FNHA-2-J-001.01) - Panel or Part Preparation

3. MATERIALS AND EQUIPMENT

3.1 For paint, two Bonderite 1000 paint test panels prepared per 86507636 (FNHA-2-J-001.01) for each coating to be evaluated. Panels must be aged at room temperature ($25^{\circ} \pm 5^{\circ}$) for 14 days minimum in a holding device which allows for air circulation around each panel.

3.2 Supply of 2" watch glasses, VWR Scientific 66112-060 or equivalent.

3.3 Dropping pipettes, VWR Scientific 52947-948 or equivalent.

3.4 For decals, unpainted Bonderite 1000 paint test panels for the markings to be evaluated. All markings applied to test panels shall age at room temperature ($25^{\circ} \pm 5^{\circ}\text{C}$) for a minimum of 72 hours before testing.

3.5 Chemical resistant containers constructed of plastic, stainless steel, etc. suitable for containing the chemicals and large enough to hold 4" wide panels.

3.6 Kimwipes, Kleenex or equivalent.

3.7 Unleaded gasoline, regular grade.

3.8 Kerosene.

3.9 Ethylene glycol base antifreeze mixed 1:1 with tap water.

3.10 Multipurpose grease.

3.11 Motor oil H.D., Multiviscosity, 10W-30 or 15W-40.

3.12 Diesel fuel.

3.13 New Holland red aerosol touch-up spray paint (p.n. 70780).

3.14 Cheesecloth.

4. PROCEDURE - PAINT

4.1 Exposure duration for each chemical shall be:

4.1.1 Gasoline 15 minutes

4.1.2 Kerosene 15 minutes

4.1.3 Antifreeze 15 minutes

4.1.4 Grease 60 minutes

4.1.5 Motor oil 60 minutes

					NAME	STD CHEM EXPOSURE			
					 NEW HOLLAND			ENGINEERING SPECIFICATION	
ALL	D	RLF	110274	JUL 97					
ALL	C	RLF	108573	961209	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.			FRAME 1	OF 2
ALL	B	NE	108125	960729					
ALL	A	RE	104739	950123					
FRAME NO.	REV	BY	ECN NO.	DATE					
APP.	DRAWN		AP	JAN 94				PART NUMBER	
KHH JAN 95	CHECKED								

MATERIALS / PAINTS**FNHA-2-J-001.15**

4.2 Keeping the test panel(s) in a horizontal position, using a separate pipette, dispense each chemical except the grease, in an area equivalent to the size of the watch glass cover on the test panel(s). Cover each area immediately with a watch glass.

4.3 Place the multipurpose grease on area of about 1 - 2 square inches (6.5 - 13.0 square cm) and leave uncovered.

4.4 At the end of each of the 15 minute exposure period remove the watch glass and wipe clean.

4.5 Examine and record any film degradation such as loss of gloss, discoloration, softening, blistering or loss of adhesion.

4.6 Following the 60 minute exposure of motor oil and grease wipe the area and examine per 3.5.

4.7 In the case that any chemical has an adverse effect on the paint, examine again following a 4 hour recovery period and record.

5. PROCEDURE - DECAL

5.1 Exposure duration for each chemical shall be:

5.1.1	Gasoline	15 minutes
5.1.2	Kerosene	2 hours
5.1.3	Antifreeze	2 hours
5.1.4	Diesel Fuel	2 hours
5.1.5	Grease	24 hours
5.1.6	Motor Oil	24 hours

5.2 Immerse each applied marking at least halfway in each chemical (4.1.1 - 4.1.6).

5.3 At the end of each immersion period, remove the markings and wipe clean.

5.4 Examine and record any marking degradation such as loss of gloss, discoloration, softening, blistering, or loss of adhesion.

5.5 In the case that any chemical has an adverse effect on the marking, examine again following a four hour recovery period and record.

5.6 Fold a piece of cheesecloth into a pad consisting of at least four thicknesses of the cloth. Dip the cloth in Xylene and rub the marking, exerting moderate pressure with the thumb using about a 2" stroke. Continue to rub across the test area 20 times (ten complete back and forth strokes).

5.7 Repeat procedures 5.4 and 5.5.

5.8 Shake the aerosol red spray repair paint according to manufacturer's instructions and spray a heavy, wet film of paint approximately 1" - 2" in diameter on the test marking. Allow the paint to stand for three minutes. Wipe off the excess paint with a clean cloth to remove the paint.

5.9 Repeat procedures 5.4 and 5.5.

6. REPORT

6.1 Report the paint or decal film condition at the end of each exposure period and after the recovery period.

6.2 The paint coating or decal is acceptable if there is no visible deterioration following the 4 hour recovery period.

	NAME			PART NUMBER	
	STD CHEM EXPOSURE			86507650	
ENGINEERING SPECIFICATION			REV. D	FRAME 2	OF 2