

MATERIALS / PAINTS

FNHA-2-J-001.36

OIL/CHEMICAL RESISTANT CASTING SEALERS

1. SCOPE

1.1 This test procedure is for material used as a sealer on interior and exterior surfaces of castings where oil/chemical resistance is required. It is used to protect against corrosion and/or for sealing properties (to prevent loosening of burned-in sand in service). It is specified on rough castings prior to final painting where required. It shall be suitable also as a rust preventive coating for non-machined castings.

1.2 The material may be applied by dip, spray, or flow coat methods. It may be a solvent or waterborne coating.

2. REFERENCE STANDARDS

ASTM B117 - Practice for Operating Salt Spray (Fog) Testing Apparatus
86507648(FNHA-2-J-001.13) - Salt Spray Resistance

NOTE: Testing may be discontinued when any failure occurs.

3. MATERIALS AND EQUIPMENT

3.1 Clean, rust free cast iron parts or panels (phosphating not required).

3.2 Solution consisting of:

Denatured Alcohol (180 proof)	85%
Unleaded Gasoline	15%

3.3 Solution consisting of:

Trisodium phosphate	0.75%
Sodium carbonate anhydrous	0.75%
Sodium hydroxide	0.50%

3.4 Solution consisting of:

SAE #30 Motor Oil	80%
Kerosene	20%

3.5 Hot plate or heating device capable of maintaining $135^{\circ} \pm 3^{\circ}\text{C}$ for 100 hours.

3.6 Approved gear lubricants 9627251 and 610043.

3.7 Salt spray cabinet conforming to 86507648 (FNHA-2-J-001.13) and ASTM B117.

4. PROCEDURE

4.1 Apply material to the cast iron surface by spraying or dipping. It must dry sufficiently in 15 minutes (at $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and $85 \pm 5\%$ humidity) to permit handling. The film must be completely hard in 8 hours and so formulated that it will cut clean when machined (after 24 hours drying) without cracking or flaking from the casting surface.

4.2 Allow test specimens to dry for 48 hours after applying the casting sealer.

4.3 Immerse a painted panel for 8 hours in the following mixture at $25^{\circ} \pm 3^{\circ}\text{C}$.

					NAME	STD CASTING SEALER	
					 NEW HOLLAND		ENGINEERING SPECIFICATION
ALL	B	RLF	110255	JUL 97			FRAME 1 OF 2 PART NUMBER
ALL	A	RE	104739	940216			
FRAME NO.	REV	BY	ECN NO.	DATE			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.
APP.	DRAWN		AP	JAN 94			
KHH FEB 94	CHECKED						

MATERIALS / PAINTS**FNHA-2-J-001.36**

Denatured Alcohol (180 proof) 85%
 Unleaded Gasoline 15%

Remove and inspect for checking, blistering, flaking, excessive blushing, dissolving or more than slight softening within 5 minutes after removal.

4.4 Immerse several painted panels (see 4.5 and 4.7) for 2 minutes in a boiling solution of:

Trisodium phosphate 0.75%
 Sodium carbonate anhydrous 0.75%
 Sodium hydroxide 0.50%

Remove, rinse with water, condition at room temperature ($25^{\circ} \pm 3^{\circ}\text{C}$) in air for 24 hours and inspect for checking, blistering, flaking, excessive blushing, dissolving or more than slight softening. Use these panels for hot oil tests 4.5 and 4.7

4.5 Immerse a panel from the alkali resistance test (4.4) for 100 hours at $135^{\circ} \pm 3^{\circ}\text{C}$ in a mixture of:

SAE #30 motor oil 80%
 Kerosene 20%

Remove and inspect for blistering, flaking, excessive blushing, dissolving or more than slight softening within 5 minutes after removal.

4.6 Place a painted panel in a salt spray cabinet for 120 hours. Remove and inspect for rust.

4.7 Immerse a panel from the alkali resistance test (4.4) for 100 hours at $107^{\circ} \pm 3^{\circ}\text{C}$ in each of the gear lubricants. These lubricants are 9627251 and 610043. Remove and inspect for checking, blistering, flaking, excessive blushing, dissolving or more than slight softening within 5 minutes after removal.

5. REPORTING

5.1 Report any checking, blistering, flaking, excessive blushing, dissolving or extensive softening in procedures 4.3, 4.4, 4.5, and 4.7.

5.2 Report any rusting per 4.6.

5.3 The sealer passes if the parts exhibit no paint film failure or rusting.

	NAME			PART NUMBER	
	STD CASTING SEALER			86507671	
ENGINEERING SPECIFICATION			REV. B	FRAME 2	OF 2