



LABEL, POLYESTER, PRESSURE SENSITIVE, ENGINE CODE

WSE-M3G194-A

1. SCOPE

The material defined by this specification is a polyester film with a pressure sensitive adhesive protected by a suitable release liner.

2. APPLICATION

This specification was released originally for material for labels which state the engine build calibration and engine build date.

3. REQUIREMENTS

3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.4 THICKNESS - Without Release Paper (ASTM D 1000) 25 - 89 micrometer or as specified on engineering drawing

3.5 APPEARANCE

The labels shall be free of streaks, blisters, wrinkles, ragged edges, smeared printing and any other surface imperfections which will make them unsuitable for the intended usage. The design and color shall be as specified on the engineering drawing.

3.6 PREPARATION OF LABELS ON PAINTED PANELS

3.6.1 Preparation of Painted Panels (FLTM BI 103-02)

Paint clean phosphated treated steel panels with current production engine air dry enamel to a dry film thickness of 13 - 25 micrometer. Air dry the painted panels for 24 h at 23 +/- 2 °C.

3.6.2 Preparation of Panel Assembly (ASTM D 1000)

Place the label on the painted panels (as prepared in para 3.6.1) with a 2 kg rubber roller to remove all wrinkles and trapped air bubbles.

3.7 ADHESION - 90° Peel, min (ASTM D 1000) 438 N/m width

Date	Action	Revisions
2006 01 25	Revised	Inserted 3.0; Deleted 3.1, 3.2, 3.3, 3.11, 3.12, 4
1991 02 13	Released	NeO1-E-10000474-091



Documents

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3.8 ENVIRONMENTAL TESTING OF PANEL ASSEMBLY

Test shall be completed in 1 - 4 h after removal from the conditioning environment.

After each of the environmental exposures, the label must not show evidence of delamination, loss of printing, loss of adhesion or any other effect which would detract from its proper function or appearance.

3.8.1 ASTM Fuel "B" for 1 h at 23 +/- 2 °C

Adhesion - 90° Peel, min 438 N/m width

3.8.2 ASTM Oil #3 for 2 h at 102 +/- 2 °C

Adhesion -90° Peel, min 438 N/m width

3.8.3 50-50 solution of ethylene glycol and water plus 1% of soluble oil. Pour 1000 mL of boiling solution on a panel 85° to normal plane.

Adhesion - 90° Peel, min 438 N/m width

3.8.4 Direct a stream jet, 690 kPa pressure with a 6.5 mm diameter orifice, at a distance of approximately 200 mm from the decal's edge for one minute at a 90° angle to the surface and then for one minute at 10° angle to its edge.

3.8.5 Direct a stream of air, 414 - 552 kPa pressure with a 2.4 mm diameter orifice, at a distance of approximately 75 mm from the decal's edge for 3 minutes at a 90° angle to the surface and then for 3 minutes at a 10° angle to its edge.

3.8.6 Humidity cabinet for 168 h at 38 +/- 2 °C and 98 +/- 2%relative humidity.

Adhesion - 90° Peel, min 657 N/m width

3.8.7 Hold the panel for 1 h at -40 °C, then expose to heat for 1 h at 100 +/- 2 °C. Repeat for 4 cycles. Maximum shrinkage 5%.

Adhesion - 90° Peel, min 875 N/m width

3.8.8 Weathering Resistance (SAE J1885) 225 kJ

3.9 PRINT ADHESION

Immediately after removal from the environmental test conditions of requirement 3.8 and on an original sample, wipe all the printing with a soft cotton cloth 10 times. Printed text must remain legible.

3.10 LABEL STRENGTH

During installation the label must not break, tear or deface. The release backing shall not tear or delaminate while being removed from the label.