PAINT PERFORMANCE, CORROSION/HEAT RESISTANT COATING, 150 °C, max — **WSA-M2P170-A1**

PAINT PERFORMANCE, CORROSION/HEAT RESISTANT COATING, 450 °C, max — **WSA-M2P170-A2**

PAINT PERFORMANCE, CORROSION/HEAT RESISTANT COATING, 650°C, max — **WSA-M2P170-A3**

1. SCOPE

These specifications define three levels of heat and corrosion resistant coatings for exhaust components.

2. APPLICATION

WSA-M2P170-A1: Typical applications include chassis brackets and exhaust hangers where operating temperatures do not exceed 150 °C.

WSA-M2P170-A2: Originally released for cosmetic purposes on muffler rear heads and tail pipes where operating temperatures do not exceed 450 °C.

WSA-M2P170-A3: To be used on exhaust components where exceptional heat and corrosion protection properties are required. Temperature resistance is 650 °C maximum.

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).

All requirements of these specifications must be met with actual production intent components.

3.3 CLEANING

All surfaces to be coated must be free from oil, grease, rust and other foreign materials. Phosphating or other surface preparations must comply with the coating manufacturer's recommendations.

3.4 FILM THICKNESS, Dry
(FLTM BI 117-01, Eddy Mag 2000/Oxford CM1700 or equivalent)

Coating thickness must be sufficient to meet all requirements of this specification. Each coating manufacturer's thickness requirements are to be specified on the applicators Control Plan.

Date	Action	Revisions	
2005 10 28	Revised	Completely revised; deleted 3.8 & 3.9	G. Stevens
2003 08 13	Revised	Para 3.0 inserted; Para 3.1, 3.2, 3.12, 4 deleted	
1993 06 29	NC00E10244447013	Released	J.M. Greene, G. Stevens

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3.5 COLOR — A1 & A2 - Black or as specified on Engineering Drawing
A3 - Gray

3.6 ADHESION — Grade 0
(FLTM BI 106-01, Method B)

Adhesion tests to be performed 24 hours after force curing, per manufacturer's recommendation. For air dry coatings, age samples for 72 hours prior to the adhesion test.

3.7 MATERIAL CURE

Materials conforming to the specification shall be cured according to the coating manufacturer's recommendation and must be listed on the applicators Control Plan.

3.10 HEAT RESISTANCE

Heat cycle samples as follows:

WSA-M2P170-A1	150 °C, 1 hour, water quench (0 + 2 °C)
WSA-M2P170-A2	450 °C, 1 hour, water quench (0 + 2 °C)
WSA-M2P170-A3	650 °C, 1 hour, water quench (0 + 2 °C)

Upon removal, the samples shall show no blistering, chipping, flaking or cracking or loss of adhesion. Adhesion tests are to be performed 24 hours after heat cycle testing (Par 3.6) and the samples must meet the Grade 0 requirement.

3.11 CORROSION RESISTANCE

After cure and heat resistance (para 3.7 & 3.10), samples shall be exposed to 10 cycles of FLTM BI 123-03 and must meet rust grade #6 or better per ASTM D 610 (red or white corrosion). For air dry coatings, age samples for 72 hours prior to corrosion testing.

Components coated to these specifications must meet the Corporate Standard for Total Vehicle Corrosion per ARL 18-0034 (DVM-0161-18).

Note: For -A3 Coating, white corrosion is acceptable.

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