Society of Automotive Engineers, Inc.
TWO PENNSYLVANIA PLAZA, NEW YORK, N.Y. 10000

AEROSPACE MATERIAL SPECIFICATION

AMS 2510C
Superseding AMS 2510B
Issued 10-15-40
Revised 11-1-68

ENGINE GRAY FINISHING
Low Baking

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

2. APPLICATION: Primarily for parts which do not exceed a temperature of 350 F (177 C).

3. PREPARATION: Before parts are painted, they shall be prepared in accordance with the following requirements:

3.1 Aluminum and Aluminum Alloys: Both wrought and cast parts shall be treated in accordance with
Ø the latest issue of AMS 2470 or AMS 2471 immediately before the priming coat.

3.1.1 Aluminum Assemblies: Aluminum alloy parts which with parts made of other materials constitute assemblies shall be anodized in accordance with AMS 2470 or AMS 2471 before assembling
Ø with such parts. Assemblies with parts made of other metals may be anodized if such other parts are insulated.

3.2 Magnesium Alloys: Both wrought and cast parts shall be treated in accordance with AMS 2475 immediately before the priming coat. No machining of external surfaces shall be done after this treatment.

3.3 Steel: Cadmium plated parts shall be thoroughly neutralized, before priming, in accordance with AMS 2400. Unplated parts shall be cleaned to remove all oil, dirt, and rust, then treated in accordance with AMS 2480 immediately prior to the priming coat.

4. PROCEDURE:

4.1 Priming Coat: A coat of zinc chromate primer conforming to AMS 3110 shall be applied to all metallic materials requiring enameling, immediately after the treatment required in Section 3, ex-
Ø cept that anodized rivets shall not be primed as details and except that two coats of primer shall be used on magnesium alloys.

4.1.1 When there are intervening operations between the prime and finish coats, such as assembling or additional machining, the parts shall be thoroughly cleaned by spraying with clean naphtha, or other solvent of low volatility, and then given another coat of zinc chromate primer before the first coat of paint is applied.

4.2 Baking: Each coat of primer shall be baked at 250 - 300 F (121.1 - 148.9 C) unless a lower tem-
Ø perature or an air dry is approved for specific parts.

4.3 Enamel Coat: Three coats of gray enamel conforming to AMS 3125 shall be applied on magnesium alloys for applications other than engines, and two coats on all other metals. Two coats shall be applied on magnesium alloys to be used on engines. Each coat of enamel shall be thoroughly baked at a temperature not exceeding 300 F (149 C), or preliminary coats may be air-dried dust free, and final coat baked firm and hard at a temperature not exceeding 300 F (149 C).