AEROSPACE
MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York, N. Y. 10017

AMS 2480B
Superseding AMS 2480A
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PHOSPHATE TREATMENT
Paint Base

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

2. APPLICATION: To produce on ferrous parts a coating which will ensure satisfactory paint adherence.

3. PREPARATION: Before placing the parts in the phosphate solution, they shall have chemically clean surfaces, prepared with minimum erosion, pitting, or unintended abrasion.

4. PROCEDURE:

4.1 The properly cleaned parts shall be immersed in, or sprayed with, a balanced phosphate solution containing nitrate as an accelerating agent; the solution shall be maintained at the proper temperature and parts shall be treated for a sufficient length of time to convert the metal surface to a uniform coating meeting all requirements of Section 5.

4.2 Immediately after the above processing, the parts shall be rinsed in cold running water.

4.3 Unless otherwise specified, after the cold water rinse, parts shall be dipped for 20 - 60 sec in a dilute chromic acid solution (7.5 oz per 100 gal of solution with an approximate pH of 5) at 190 F ± 10 (87.8 C ± 5.6).

4.4 Parts shall be thoroughly dried.

4.5 Parts shall then be protected against contamination of the coating, and the painting should be done as soon as practicable.

5. QUALITY:

5.1 The coating shall have a uniform, dull appearance ranging from light to dark gray in color with or without some silvery iridescence

5.2 Parts or test panels shall be capable of withstanding exposure to salt spray for not less than 150 hr without showing rust extending more than 1/8 in. on either side of the scratch marks when prepared and tested as follows:

5.2.1 Parts or, in lieu thereof, steel panels approximately 2 x 4 in., shall be processed as in Section 4 and then coated with one coat of AMS 3120 black enamel, air dried 15 min., baked at 295 - 305 F (146.1 - 151.7 C) for 30 min., and allowed to stand in air for 24 hours. Film thickness of enamel shall be 0.0004 - 0.001 in. Parts or panels shall be scratched with a sharp instrument to a depth which will cut through the enamel film and shall be exposed to salt spray test for 150 hr in accordance with the issue of ASTM B117 specified in the latest issue of AMS 2350.

6. APPROVAL:

6.1 To assure adequate performance characteristics, treatment to this specification shall be approved by purchaser before parts for production use are supplied, unless such approval be waived.