

# DATA ITEM DESCRIPTION

**TITLE:** FINISH SPECIFICATION

**Number:** DI-MFFP-81402A

**AMSC Number:** N9570

**DTIC Applicable:** No

**Preparing Activity:** AS

**Applicable Forms:** N/A

**Approval Date:** 20150831

**Limitation:** N/A

**GIDEP Applicable:** No

**Project Number:** MFFP-2015-005

**Use/relationship:** The finish specification identifies the specific organic and inorganic surface pretreatments, coatings, and sealants intended to be used for corrosion protection of the materials identified in the corrosion prevention and control plan. The specification will be used by the procuring activity to evaluate the adequacy of the finishes selected by the contractor in meeting the specific design, performance, and operational requirements contained in military specifications, standards, and appropriate systems specifications.

a. This DID contains the format and content preparation instructions for data resulting from the technical requirements described in 4.2 of MIL-STD-1568.

b. This DID must be tailored to the specific system being acquired and the procuring activity's specific requirements.

c. This DID is applicable to any system acquisition that includes a requirement for a finish specification in accordance with MIL-STD-1568. This includes MIL-STD-1530(USAF), MIL-HDBK-1783, MIL-STD-1798, and MIL-STD-7179. (Copies of these documents are available online at <http://quicksearch.dla.mil>.)

d. This DID shall be used for the entire system and all major subsystems, including airframe, avionics, engine, launch and recovery systems, mechanical subsystems, and support equipment.

e. This DID is intended for use in conjunction with the corrosion prevention and control plan DID numbered DI-MFFP-81403.

## Requirements:

1. Reference Documents. The applicable issue of the documents cited herein, including their approval dates and dates of any applicable amendments, notices, and revisions shall be as specified in the contract.

2. Format. The finish specification shall be in contractor's format.

3. Content. The finish specification shall include the following data.

3.1 Scope paragraph. The scope paragraph shall contain statements as to the degree of coverage encompassed by the document, for example, the entire system, parts thereof, spare parts, standard parts, Government furnished equipment, and vendor supplied parts. It shall also specify the type of protection in accordance with MIL-STD-7179.

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3.2 Requirements paragraph. The requirements paragraph shall contain the contractor's description of the application and control techniques to be utilized with the organic finishes. Any special considerations due to system peculiarity shall be stated; for example, aerodynamic heating, nuclear effects, severity of environment, electromagnetic compatibility/electromagnetic pulse requirements, and resistance to chemical/biological warfare agents/decontaminants. Definitions contained herein shall include exterior surfaces as well as interior surfaces and permanently installed fasteners. Subsequent paragraphs shall specify the details of the finish system. Each finish procedure shall be assigned a code designation for reference on production drawings.

3.3 Special exterior finishes. Appropriate subparagraphs of the finish specification shall cover special finishes for special areas such as wing and empennage, control surface cutouts and wells, bomb bays, wheel wells and landing gears, leading edges, walkways, man-made and non-man-made environments, system components, laminates, and exterior markings.

3.4 Notes. The notes section shall contain a list of surfaces not to be treated or coated along with supporting rationale. This section shall also contain definitions.

3.5 Sealing. The sealing paragraph shall include:

(1) Sealing requirements on:

- (a) Permanently attached structure
- (b) Structure that is mechanically separable for maintenance
- (c) Dual or multiple function interfaces (for example, electrically conductive structural joint)
- (d) Mechanically attached creviced joints (for example, riveted)
- (e) Galvanic couples (with protective permanent finish codes)
- (f) Crevice sealing of sump located joints
- (g) Environmental sealing (including mechanically separable hatches and avionic bays)
- (h) Fluid tank sealing (fuels, operational fluids, condensed gases)
- (i) Fuselage pressure sealing (joints, faying surfaces, windows)
- (j) Acid sealing (batteries and battery boxes, including vents)
- (k) Firewall sealing
- (l) Aerodynamic smoothing
- (m) Potting including electrical connectors
- (n) Heat resistant sealing

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- (o) Fay surface sealing
  - (p) Permanent fastener sealing
  - (q) Drainage provisions
  - (r) Latrine sealing, integrity, and overflow provisions
  - (s) Galley sealing, integrity, and spillage provisions
  - (t) Removable fastener sealing
  - (u) Transparency sealing
  - (v) Market beacon, antennae, and other external interface installations
  - (w) Coolant lines, elastomers, Marmon and "V" clamping
- (2) List of sealing materials and process specifications used.
- (3) Inspection and control requirements.

3.6 Finish codes. The finish specification shall contain a table of all finish codes allowed for use in the system. This table shall include, but not be limited to, for each reference code: reference to the application specification or standard, reference to quality assurance verification methods, and the resulting finish thickness.

3.7 Specification cross references. The finish specification shall contain a cross reference of company and vendor specifications with the nearest equivalent military or industry standard specifications. Any company or vendor specifications which are not equivalent shall be identified and the differences described.

3.8 Other considerations. Alternative finishes to those described in MIL-STD-7179 and MIL-DTL-5002 shall be presented in a separate section or appendix, and accompanied by supporting technical information to justify their use on any specific drawing.

End of DI-MFFP-81402A.