

F-35 Program Information Export Administration Regulations (EAR) Controlled Information NGC REL TO F-35 Program

Peeling Coatings

Supplier Bulletin

Document Date: March 15, 2018

F-35 Supplier Quality Engineer Troy Conwell

EXPORT ADMINISTRATION REGULATIONS (EAR) CONTROLLED INFORMATION

<u>WARNING</u> - This document contains commodities, technology or software whose export is restricted in accordance with the Export Administration Regulations (EAR) Part 772. Diversion contrary to U.S. law is prohibited.

Commerce Classification: EAR99 NGC REL TO F-35 Program

F-35 INFORMATION DISCLOSURE WARNING Distribution of this data is restricted to the entities listed in the "REL TO" statement and is not releasable outside of Northrop Grumman Corporation or its F-35 Program Teammates, suppliers, customers, or Partners without the advance written approval of the Joint Program Office for the F-35 Joint Strike Fighter Program.

IMPORTANT NOTICE: A hard copy of this document may not be the document currently in effect. The current version is always the version on the Northrop Grumman network.

Document Change History

Revision	Description of Revision/Change	Date
Original Issue	Original release	Mar 15, 2018



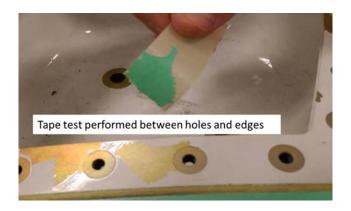
F-35 Program Information Export Administration Regulations (EAR) Controlled Information

Commerce Classification: EAR99 NGC REL TO F-35 Program Document No: [Doc. #, Rev-]

Dear Valued Supplier,

We continue to be plagued with primer/topcoat adhesion failures on our production line. In 2017 we sent representatives from our Materials and Processes engineering team along with an auditor from the NGC Quality team to finish houses that delivered parts that subsequently exhibited primer adhesion failures. We had requested information from you regarding what finish houses your parts were processed at and you provided us the feedback to drive these audits.





The findings from those audits included, but were not limited to, the following process violations:

- An anodized part surface failed a required water break test and the supplier technician failed to recognize the failure
 - Test failure indicates surface contaminants have not been fully removed.
- The supplier technician attempted to clean the surface using an acetone wipe
 - An incorrect wiping technique was observed
 - NGC M&P had to instruct the technician on proper part cleaning technique
- A dry tape test was performed by a supplier technician on a primed aluminum part
 - The test was not performed correctly
 - Dwell time was not being followed the tape was not left adhered to the part surface for the required 60-120 second dwell time
 - The same piece of tape was used for multiple tests
 - NGC M&P had to instruct the technician on proper tape test procedures
 - Some parts failed the tape test when it was performed properly

We have been issuing SCAR's for these failures and are receiving pushback stating that the tape test was performed. When we perform a proper tape test on suspect parts



F-35 Program Information Export Administration Regulations (EAR) Controlled Information Commerce Classification: EAR99 NGC REL TO F-35 Program

Document No: [Doc. #, Rev-]

using the proper procedures, the parts fail the test, indicating to us that the proper test procedure may not have been used by the finish supplier.

We recommend that you begin performing verification tape testing on parts yourself after they have been finished by your sub-tier suppliers, at least on a random sampling basis, to confirm that your finish supplier is following proper adhesion verification procedures. Refer to specification LMA-PJ264, Application and Control of Organic Finishes, for tape testing requirements.

We will be sending our audit team out again to the paint houses that we are seeing failures from but our audit is only a point in time so we ask you to do your part in ensuring your paint houses provide consistently compliant part finishes.

Sincerely,

Troy Conwell F-35 Supplier Quality Engineer 310-350-4627