



161Thorn Hill Road
Warrendale, PA 15086-7527

AUDIT CRITERIA

AC 7108/1 REV. A

Issued 1995-01

Revised 2008-10

Superseding AC7108/1

TO BE USED ON AUDITS AFTER NOVEMBER 30, 2008

Administrative revision adding annotation for export sensitive questions and minor editorial changes. No change to revision

Nadcap
AUDIT CRITERIA FOR
PAINTING AND DRY FILM COATINGS

Note: AC7108/1 Rev A was updated on October 31, 2008 to include editorial changes, EC-LR designations to the job audit section of the checklist. No revision change was made to this checklist.

1. SCOPE

This checklist supplements PRI AC7108. This checklist shall apply to suppliers seeking NADCAP accreditation engaged in painting and dry film coatings.

2. GENERAL INFORMATION

Auditor to include all processes currently being performed.

PAINTING/DRY FILM COATINGS

- PAINTING
- DRY FILM
- OTHER. LIST: _____

3. PAINTING AND DRY FILM COATINGS

- | | | |
|-----|---|--------|
| 3.1 | Are precleaning and pretreatment procedures documented on shop paper? | YES NO |
| 3.2 | Is verification of cleaning performed and documented prior to paint/film application? | YES NO |
| 3.3 | Are prepared surfaces protected prior to paint/film application? | YES NO |
| 3.4 | Is paint/film material purchased to customer approval or qualified products list (QPL)? | YES NO |

PRI operating procedures provide that "This report is published by PRI to advance the state of technical, engineering, and quality sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

PRI invites your written comments and suggestions.

3.5	Does material have traceable certificate of conformance?	YES	NO
3.6	Is material applied traceable to the hardware to which it was applied and recorded on shop paper prior to use?	YES	NO
3.7	Does the supplier have a procedure for shelf-life control?	YES	NO
3.8	Is there evidence in the shop that shelf-life control is carried out (i.e., stickers on containers, no out of date material on the production floor, etc.)?	YES	NO
3.8.1	Does the supplier have a documented procedure for re-qualification/disposal of material?	YES	NO NA
3.8.2	Does the supplier retain records of requalified materials and requalification test results?	YES	NO NA
3.9	Are materials stored under appropriate temperature controlled conditions?	YES	NO NA
3.10	Is viscosity/thinning ratio of the coating material controlled, checked and documented immediately prior to use?	YES	NO NA
3.11	Are there procedures for proper mixing/agitation of materials including mix ratios, order, shaking time, and mixing time?	YES	NO
3.12	Are pot life and induction time recorded on shop paper?	YES	NO NA
3.13	Are mix, start, and finish times recorded on shop paper?	YES	NO NA
3.14	Is spray equipment cleanliness maintained including guns, cups, feed lines, etc?	YES	NO
3.15	Are dry-film and paint spray equipment and application areas controlled to minimize contamination?	YES	NO NA
3.16	Are grit blasting and coating spray equipment segregated?	YES	NO NA
3.17	Are required and actual drying times between coats and to final cure documented on shop paper?	YES	NO NA
3.18	Are thickness test results and methods documented on shop paper?	YES	NO
3.19	Are adhesion test results and methods documented on shop paper?	YES	NO
3.20	Are paint color standards available?	YES	NO NA
3.21	Are there procedures to assure that relative humidity and temperature meet manufacturer or customer requirements during application and air cure?	YES	NO

3.21.1 Are RH and temperature in the shop recorded either continuously on a chart or manually at start of shift, before application, and every 4 hours thereafter in a log? YES NO

3.21.2 Is there an individual identified to determine that environmental conditions in the shop are suitable for coating as described above? YES NO

4. CHEMICAL PROCESS JOB AUDIT OF PAINTING/DRIED FILM LUBRICANTS

4.1 Job Audit

Note: If the part being audited is EC-LR (e.g. ITAR) the questions marked with an (EC) cannot be answered as they are technical information which cannot be displayed in eAuditNet. Auditor to answer EC questions with "EC/LR".

4.1.1 (EC) Job Identity – Job Audit of _____

4.1.1.1 Part Description _____
(Note: If EC only include a general description, e.g. "turbine blade, bracket")

4.1.1.2 Part Number _____

4.1.1.3 Customer _____

4.1.1.4 Prime Contractor _____

4.1.1.5 Purchase Order/Revision Level _____

4.1.1.6 Part Quantity _____

4.1.1.7 Serial/Lot Number _____

4.1.1.8 Date of Job/Job Number _____

4.1.1.9 (EC) Alloy/Heat Treat Condition/Hardness _____

4.1.1.10 Processing Specifications _____
(Note: If EC only include specification number, e.g. "AMS2411")

4.1.1.11 (EC) Other Purchase Order Requirements _____

4.1.2 Paperwork Review: Compare purchase order, shipping documents, referenced blueprints, specifications, shop travelers, process instructions, and inspection records.

4.1.2.1 Are part numbers, specifications, and revision levels flowed down correctly? YES NO

4.1.2.1.1	Are frozen processes identified and if so, has customer approval been obtained? ● <i>Compliance Assessment Guidance: NA applies if no frozen processes.</i>	YES	NO	NA
4.1.2.1.2	If a follow-on order, have purchase order requirements been reviewed for change? ● <i>Compliance Assessment Guidance: NA applies if not a follow-on order.</i>	YES	NO	NA
4.1.2.2	Are processing and inspection test requirements flowed down correctly?	YES	NO	
4.1.2.3	Does shop paper provide for the following:			
4.1.2.3.1	Traceable part identification?	YES	NO	
4.1.2.3.2	All processing steps identified including procedure numbers as applicable?	YES	NO	
4.1.2.3.3	All inspection and test requirements identified?	YES	NO	
4.1.2.3.4	All relevant variable data from process parameters controlled by operator recorded on shop paper or traceable to job in shop records?	YES	NO	
4.1.2.3.5	All inspection and test results recorded on shop paper or traceable in shop records?	YES	NO	
4.1.2.3.6	All operations, inspections, and tests done in sequence recorded or traceable to specific process lines/workstations, operator/inspector/technician?	YES	NO	
4.1.2.3.7	All rework operations documented? ● <i>Compliance Assessment Guidance: NA applies if no rework is required for this job</i>	YES	NO	NA
4.1.2.3.8	All test coupons identified and traceable to specific pieces/lots? Coupons processed through all processing steps on pieces/lots they represent; including pre-and post-process chemical and/or mechanical cleaning and thermal cycles? ● <i>Compliance Assessment Guidance: NA applies if test coupons are not required to be processed with this job.</i>	YES	NO	NA
4.1.2.3.9	All process, test and inspection equipment calibrated?	YES	NO	

4.1.3 Process Observations

4.1.3.1 Receiving, paperwork generation, requirement review and receiving Inspection:

4.1.3.2 (EC)Pre-process cleaning NA
 • *Compliance Assessment Guidance: NA applies if pre-cleaning is not required.*

4.1.3.3 (EC)Pre-process thermal operations NA
 • *Compliance Assessment Guidance: NA applies if pre-process thermal treatments are not required.*

4.1.3.4 (EC)Masking NA
 • *Compliance Assessment Guidance: NA applies if masking is not required*

4.1.3.5 (EC)Process Material:	Component 1	Component 2
Type of Material	_____	_____
Manufacturer	_____	_____
Material Specification	_____	_____
Lot Number	_____	_____
Components compatible?	YES NO NA	
Cert available?	YES NO NA	
Shelf-life period	_____	_____
Date of Manufacture	_____	_____

4.1.3.6 (EC) Process Conditions	SpecificationCondition Requirement	Observed
Thinning solvent	_____	_____
Viscosity/Ratio	_____	_____
Mixing Time	_____	_____
Induction Time	_____	_____
Pot Life	_____	_____
Temperature	_____	_____
Relative Humidity	_____	_____

Cure time between coats	_____	_____
Time before final cure time	_____	_____
Time of final cure	_____	_____
Final cure temperature	_____	_____

4.1.3.7 (EC)Processing_____ NA

4.1.3.8 (EC)Post-processing cleaning_____ NA

4.1.3.9 (EC)Post-processing thermal operations_____ NA

4.1.3.10 Final Inspection_____

4.1.3.11 Packing and shipping_____

4.1.3.12 (EC)Solution and/or material testing_____

4.1.3.13 (EC)Periodic and/or lot testing_____

4.1.4 Lot Acceptance Testing/Inspection

4.1.4.1 Does the definition of "lot" as established by the supplier conform to the definition outlined by the specification? YES NO

4.1.4.2 Were parts shipped before completion of lot acceptance testing only with specific customer authorization? YES NO NA

- *Compliance Assessment Guidance: NA applies if parts were not shipped before completion of lot testing.*

4.1.4.3 Did the sampling plan meet specification and/or customer requirements? YES NO

4.1.4.4 Was hardware held pending resolution of nonconformances noted during testing? YES NO NA

- *Compliance Assessment Guidance: NA applies if no non-conformances*

4.1.4.5 Was lot testing required? YES NO NA
• *Compliance Assessment Guidance: NA applies if no lot testing*

4.1.4.6 Was lot testing performed and documented? YES NO NA
• *Compliance Assessment Guidance: NA applies if no lot testing*

4.1.4.7 Was lot testing in conformance with specification and/or customer requirements? YES NO NA
• *Compliance Assessment Guidance: NA applies if no lot testing*

4.1.5 Operator Control and Job Acceptance

4.1.5.1 List operator(s) who performed processing operations:

4.1.5.2 Are the operators trained and approved? YES NO

4.1.5.3 Are all operations, inspections, and tests properly stamped off or signed off and dated, as required, by the correct operator or department? YES NO

Describe: _____

4.1.5.4 Does all processing, testing, and inspection conform to requirements? YES NO

4.1.6 Certification and Reports or Test Report

4.1.6.1 Does certification show compliance to all requirements and reflect actual data as required? YES NO

4.1.6.2 Did this job comply with all requirements? YES NO

4.1.6.3 Certification or test report number: _____ NA

4.1.6.4 Certification or test report date: _____ NA