**CHECKLIST FOR TEFLON COATING IAW MIL-P-24074B, TYPE II**

1. Identify the document(s) that invokes the requirements for teflon coating.

*Note: Coating thickness requirements will be found in the contractual documents, not this specification.*

Specify:

1. Is the coating material DuPont 851N-204 primer and 852N-202 topcoat?

If no, has NAVSEA provided written approval of the alternate materials? (3.1.2)

3. Does the supplier have certifications from the coating material manufacturer stating that the material meets the requirements of paragraphs 3.1.2 & 3.1.4? (3.1.5 & 4.1.2a & c)

4. Do the acquisition documents identify the functional (sealing) surfaces? If not, file a Contract Deficiency Report (CDR) in EDA for a contract modification to include this information. (This information is needed so that the supplier does not rack the parts on the functional surfaces for processing.) (3.2.2.1)

5. Does the supplier have written processing instructions?

Identify procedure(s) number and revision:

6. Is the spray gun checked for cleanliness prior to use?

7. Is the air supply for the spray gun checked for moisture, oil, and hydrocarbons?

8. Are the teflon primer and topcoat material properly stored and maintained (refer to the teflon material manufacturer’s data sheets for this question thru question 16, if an alternate material is being used): (3.2.2)

DuPont 851N-204 Primer

* 1. Stored at 40⁰F?
  2. If no above, the shelf-life is greatly reduced from 12 months at 40⁰F to 4 weeks at 60⁰F, and 2 weeks at 80⁰F. Irreversible coagulation will occur above 80⁰F or if the product freezes. (*This means it is not suitable for our product.*) Does the material meet the storage and shelf-life limits noted?
  3. Is the primer container rolled for 30 minutes at 30 rpm once per month?

DuPont 852N-202 Topcoat

1. Stored at 65 - 75⁰F?

b. Within its 12-month shelf-life?

1. Are the parts adequately cleaned prior to priming (and roughened by grit blasting when not precluded by surface finish requirements or part thickness)? *Note: Any residual oil left on the part surface from insufficient cleaning will affect the color of the cured film, and adversely affect adhesion.*
2. Is distilled or deionized water used for thinning the primer, if thinning is necessary?
3. Is the primer strained through a 100-mesh stainless steel screen prior to application?

*Coating thickness of primer should be ~.0005/.0007”.*

12. Is primer cure baking accomplished to achieve a part temperature of 750⁰F for 10 minutes? *Note: An air dry or force dry at* ***less than*** *180⁰F* *may be used prior to this cure bake to drive off excess water.*

13. Is 852N-202 topcoating material allowed to come up to room temperature, then rolled or gently agitated until homogenous? *Note: Power mixers SHOULD NOT be used.*

14. Is the topcoating material strained through a 100-mesh stainless steel screen prior to application?

*Each coat of the topcoat should be ~.0008/.001” thick.*

15. If only one coat of topcoat is required, is it force dried at 150-200⁰F, and then baked at 725⁰F for 30 minutes?

16. If multiple coats are required, is baking performed as follows:

For all coats except the final coat: Force dry at 150/200⁰F, then bake at 600⁰F for 5-10 minutes

For the final coat: Force dry at 150/200⁰F, then bake at 750⁰F for 15 minutes

*Properly cured topcoats will be clear.*

17. Are parts final cleaned with acetone or denatured ethanol, and then only handled with lint-free gloves? (3.4.1)

18. A lot is defined as all the pieces coated at one time using the same lot of coating material. Is the following lot testing performed and properly documented:

1. Impurity test (3.2.2.3, 4.3.3 & 4.4.3)
2. Workmanship (3.4 & 4.3.1)

c) Coating thickness (3.3 & 4.3.1.1)

19. If coating removal is necessary, does the supplier have a NAVSEA-approved stripping procedure? (3.2.2.2)