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DIATEX 1000 APPLICATION NOTES

1. All part numbers and materials listed in this data sheet are available from Skycraft and the numbers correspond with the latest Skycraft Product Catalogue.
2. All timber work should be protected with Skytech Rhodius varnish - part number D300. Brushes used for the application of Rhodius varnish should be cleaned with MEK - part number G512.
3. Apply one coat of clear non taut Nitrate dope D103, thin with approximately 30% Nitrate Dope thinners D201 to the area that the fabric will touch. This is to seal the timber. When this is well dry lightly sand to remove any dust.
4. Apply two full coats of Skytech Fabric Cement - part number D154 to the structure, thin 30% maximum with Skytech Fabric Cement Reducer - D156. When this is dry de nib as required.
5. Lay the fabric out on the structure keeping the warp or weft parallel to either the spar, ribs or longerons. Using Skytech Fabric Cement thinned 50% with its thinner D156 brush through the fabric onto the supported areas and rub down with a scrap of fabric. (Nothing with colour on it as this will stain). Great care must be taken to ensure that all the edges and concave surfaces are well adhered. The fabric should be kept as even as possible.
6. Allow the fabric application to cure for at least 24 hours at room temperature. Cooler workshops will require a longer time period. Tension unsupported fabric with a heat sealing iron or domestic iron. The maximum temperature is 200 c but normally temperatures of approximately 160 c is adequate. Scorched fabric must be regarded as damaged and scrap so use a fabric thermometer - Part number F507 as a safeguard. When tensioning unsupported fabric start with a lower temperature approximately 120 c and move over the whole structure steadily. An iron speed of approximately 6 inches per second is a good yard stick. Don't be tempted to try and pull all the slack out of the fabric in one go.

Go over the wing or structure two, three or four times gently increasing the iron temperature on each run. Remember a maximum temperature of 200 c. It's highly recommended that a test patch be used to check the iron for each run.

7. The first coat on the Diatex 1000 should be as follows:

This should be a mixture of four parts clear non tautening Nitrate Dope D103 and one part Skytech Fabric Cement D154. Thin this mixture by 25% with Nitrate Dope Thinners D201. Brush this mixture over the whole structure, supported and unsupported using small frequent brushfuls. Heavy application can in some instances see the dope mixture flood through the fabric and run on the internal surface. This should be avoided at all times but can be remedied using a domestic vacuum cleaner with a scrap of fabric to suck the offending running dope through to the top surface. This first coat is the most important. We need the dope mixture to go right through the fabric to lock the doping and painting system to the fabric without it running. Use your test sample for practice.

8. If rib stitching is required then a 1 inch plain Diatex tape - part number F170 should be doped over each rib cap. Rib stitching using the cord F501 is sewn the reinforced 1 inch tape. When rib stitching is complete the rib cap and stitching is covered with a 2 inch pink edged tape - part number F154.

9. Apply additional reinforcing tapes on joints and edges. There is a general tendency to skimp in this area. Tape along the ribs, wing root ends trailing edges, aileron gaps and anywhere where there might be abrasion.

10. Apply drainage eyelets AN231-2 to the undersurface of the wings and ailerons where water may accumulate. Don't cut out the centres of these drainage eyelets at this time. Inspection rings F521 should be applied now using the same dope and cement mixture. They should be put down with adequate dope and cement and brushed round all their edges to ensure there is no air between the fabric and reinforcing ring. Don't cut the centres out of the inspection rings at this time.

11. Apply two coats of non tautening nitrate dope D103 thinned as required with thinners D201. These are the build up coats and the structure should be de nibbed between coats.

12. Spray two coats of aluminium non tautening Nitrate Dope D108 thinned as required with nitrate dope thinners D201. De nib between coats.

13. Cut out centres of reinforcing rings, burn out centres of drainage eyelets with a soldering iron.

GENERAL NOTES

1. Brushes: It is extremely important to use the correct brushes available from Skycraft with non laquered handles that are dope and nitrate resistant. The user will find that the bristles on these brushes do not come out as they will with commercially available items. Part Numbers are - 1/2" F525-0, 1" F525-1, 2" F525-2, 3" F525-3, 4" F525-4.
2. Skytech Fabric Cement Reducer - Part Number D156. In no circumstances should this be substituted with either Methyl Ethyl Ketone, Acetone, Cellulose thinners, Nitrate Dope thinners or gun wash. The adhesion qualities of the fabric cement will be greatly reduced if any of these products are used. In some cases this can be as much as 18%. It really isn't worth the risk.
3. Nitrate Dope thinners, Part number D201 is a correct blend of the solvents in Nitrate dope. This should not be substituted with either gun wash or cellulose thinners which both contain a considerable amount of water. Poor adhesion between dope coats will result if the correct thinners is not used.
4. Skytech Rhodius Varnish is compatible with the Skytech Fabric Cement and Nitrate Dopes. It is also available in 2.5 litre tins, Part Number D300-25.
5. MEK, Part Number D512 is available in 1 litre tins, Part Number G512-1.
6. Nitrate Dope, Part Number D103 is available in 2.5 litre tins, Part Number D103H.
7. Nitrate Dope Thinners, Part Number D201 is available in 2.5 litre tins, Part Number D201H.
8. Skytech Fabric Cement D514 is available in 2.5 litre tins, Part Number D153 and 1 litre tins D152.
9. Skytech Fabric Cement Reducer, Part Number D156 is available in 2.5 litre tins, Part Number D155 and 1 litre tins, Part Number D157. Aluminium Non Tautening Dope, Part Number D108 is available in 2.5 litre tins, Part Number D108H.