

SUBJECT : Gelcoat cracks  
EFFECTIVITY : all DG-models  
ACCOMPLISHMENT : none

REASON : A polyester gelcoat called "Lesonal Schwabbellack" is used on DG/ELAN gliders. The advantage over other polyester gelcoats like "Lesonal Vorgelat" is that no crazing will appear after some years. In addition it can be polished to a very shiny surface. However, this paint is brittle as are all polyester paints, so long cracks in cord direction may appear after flying at cold temperature and especially when the glider has taken up humidity. Such cracks, starting at the edges of the airbrake boxes are very common. They may go right to the leading and trailing edge after some time.

The advantage of the "Schwabbellack" is that the paint rises from the structure at the crack. Therefore there is no risk that the crack will extend into the structure as is likely with cracks in other types of gelcoats.

INSTRUCTIONS : 1. The cracks need not be repaired to keep the glider airworthy. However, the glider should not be left outside for long periods. It should be stored in a vented trailer or hangar.  
2. If the cracks are to be repaired, the repair method depends on the thickness of the gelcoat.  
a) thinner than 0.5 mm: normal scarfing of the gel coat at both sides of the crack down to the structure and applying new "Schwabbellack".  
b) thicker than 0.5 mm: scarfing see above. Then laminate thin glasfibre cloth (80 g/sqm) 1 or 2 layers depending on paint thickness over the crack. Be careful that the cloth does not protrude above the exterior surface. For laminating don't use resin but use the "Schwabbellack" which may be regarded as a polyester resin. Fill up with "Schwabbellack" accordingly.

MATERIAL : Lesonal Schwabbellack 0369066 with hardener 0720510. Mixing ration 100 : 2.  
Max. 10% thinner 0630260.  
Glasfibre cloth 80 g/sqm  
e.g. Interglas 90070.

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