



TOMARK, s.r.o.
Strojnícka 5
080 01 Prešov

SERVICE BULLETIN

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MODELS AFFECTED:	Viper SD-4 – all versions
APPLICABILITY:	All Viper SD-4
SUBJECT:	Cabin canopy glass maintenance update
COMPLIANCE TIME:	At the next aircraft maintenance
COMPLIANCE:	N/A
DESCRIPTION:	The maintenance method of the cockpit canopy glass described in the Technical Description and Maintenance Instructions in Chapter 4.1 does not comply with the cockpit glass manufacturer's recommendations.
REASON:	Due to occurrence of canopy glass cracks
MANPOWER:	One person
LABOUR TIME:	Approx: 30 min
MATERIALS:	In accordance with Professional Maintenance for Acryl Glass Products
TOOLING:	In accordance with Professional Maintenance for Acryl Glass Products
REFERENCES:	Technical Description and Operation and Maintenance Manual Professional Maintenance for Acryl Glass Products
WEIGHT AND BALANCE:	No influence.
ELECTRICAL LOAD DATA:	No influence.
TECHNICAL SUPPORT INFORMATION:	If necessary, please contact: TOMARK, s.r.o. Strojnícka 5, 080 01 Prešov, Slovakia, Tel: +421 51 7764 480, E-Mail: servis@tomarkaero.com, http://vipersd4.sk/kontakt/

INSTRUCTIONS FOR OPERATORS

- 1.1. Maintenance of the cockpit canopy glass should be performed in accordance with the instructions described in the "Professional maintenance of acrylic glass products" document, which is an appendix of this Service Bulletin.
- 1.2. Update the data referred to the cabin cover glass maintenance listed in the Technical Description and Operation and Maintenance Manual of the aircraft as shown in the appendix to this bulletin.
- 1.3. Make a record to the Aircraft log book about implementation of this a bulletin.

Róbert Benetin

Compiled by:

Airworthiness Department Specialist

Slavomír Dobrovič

Approved by:

Head of Design Department

Josef Weiss Plastic GmbH
München
Kunststoffverarbeitung
Kunststoffhandel



Josef Weiss Plastic GmbH
Handelsregister München HRB 72004
Geschäftsführer: Stephan Brecht, Gerhard Fischer

Professional Maintenance for Acrylic Glass Products

(For the below mentioned activities we do not assume any kind of responsibility!)

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Cleaning Acrylic Glass

Acrylic Glass that is dusty can most effectively and gently be cleaned using plenty of water and a little washing-up liquid. **By no means you should use glass cleaning or similar products that contain vinegar.** More resistant dirt, such as insects sticking to the surface should be soaked using a wet, soft cloth or even a tissue. After a while you should wash it off with a mixture of water and washing-up liquid. Always finish by rinsing with plenty of clear water. It is absolutely vital to use a new, clean and soft cloth or sponge to wash the glazing.

To finish off, you can treat the canopy with the antistatic cleaner "WEARRA-CLEAN" (cf. section "Sealing an Acrylic Surface"). If polishing is required, carry out the polishing before you seal the surface.

Notes:



Polishing Acrylic Glass

General information

The polishing of acrylic glass can be helpful to restore the original transparency and brilliance of the material. The required procedures are determined by the seriousness of the crazing or scratches. Each procedure is described in a separate section of this document.

Crazing is a slight visual disturbance on the surface of the acrylic glass. You can see it, but you can not feel it with the fingernail.

Scratches on the other hand can be felt with the fingernail.

When polishing acrylic glass, by no means use polishing machines, for these will cause excessive temperatures of the material, which will lead to optical disturbances and in the worst case to the destruction of the item. Even when polishing manually the acrylic glass heats up. Therefore when polishing, use little pressure only to avoid crazing and ream marks.

Make sure to take your time when polishing is required. It's the only way you can achieve optimum results.

Notes:



Removing scratches

Material you need:

- abrasive cloth grit 1500 / 2400 / 3200 / 4000 / 6000
- cotton wool without synthetic fibre (drugstore)
- Polisher I
- Polisher II

Make sure there is no dust or dirt on the surface you want to treat. Otherwise refer to section "Cleaning Acrylic Glass" in this document. Scratch means that you can feel it with the fingernail. As long as you do not feel it with the fingernail, we talk about crazing, which can be removed using a different procedure (cf. "Removing crazing"). To remove scratches you grind the surface with a wet abrasive cloth with grit 1500. For small surfaces you can wrap the cloth around a ball of plastic modelling-material. This material adapts well to all shapes, even narrow bends. Bigger surfaces can be treated with the flat hand. Move the abrasive cloth back and forth in a straight movement. Do not use circular movements. Remove particles using compressed air. Then you grind the surface with abrasive cloth using a higher grit grade, such as 2400. In the next steps you proceed with ever increasing grit, up to 6000. To finish off, polish with *Polisher I* and *Polisher II* as described in "Removing crazing".

Notes:



Removing crazing

Material you need:

- cotton wool without synthetic fibre (drugstore)
- Polisher I
- Polisher II

Make sure there is no dust or dirt on the surface you want to treat. Otherwise refer to section "Cleaning Acrylic Glass" in this document. Then rub manually the polisher I in circles into the material using the cotton wool and a little pressure. Keep rubbing in circles until the polisher I has been removed completely. Make sure you use a clean cotton wool surface all the time.

Next, you spread the polisher II, also in circles using the cotton wool, on the surface.

WARNING: Do not rub the polisher II into the surface as you did with polisher I, just spread it. Once it starts to dry, rub it off in circles using the mentioned cotton wool.

To finish off, you treat the canopy with the antistatic cleaner "WERRA-CLEAN" (cf. section "Sealing an Acrylic Surface").

Notes:



Sealing an Acrylic Surface

Material you need:

- Werra Clean
- Micro Fibre Cloth

Spread a thin layer of WERRA-CLEAN on the acrylic surface (pumping sprayer) and rub in slightly with a micro fibre cloth. Wait a short while (5 to 15 seconds) to let the spray take effect and afterwards wipe the surface completely dry in circles using a micro fibre cloth. This treatment produces a water-repellent effect that avoids the building of water marks for a certain period of time. A noticeably smoother surface is produced.

Notes:



Material Reference

Product Name	Apply using	JWP Part Number
Werra Clean 250 ml 500 ml 5 litre	Micro Fibre Cloth	611 002 50 610 050 01 610 050 00
Micro Fibre Cloth, 50 each		611 001 01
Polish I, 1 litre	Sanitary cotton (no synthetic fibre)	610 11 000
Polish II, 1 litre	Sanitary cotton (no synthetic fibre)	610 210 00

4.1 Cleaning of the canopy

Detailed description of canopy cleaning is described in “Professional Maintenance for Acryl Glass Products” that is part of supporting airplane documentation.

4.2 Cleaning of coated parts

The surfaces of metal sheet and laminate parts have durable coating. Under normal conditions it is necessary to preserve the surface of the aeroplane with polishing pastes used normally for the preservation of car bodies. During regular daily maintenance clean the aeroplane with clean water with the possible use of a detergent suitable for car bodies. After the washing, wipe the surface of the aeroplane dry.

CAUTION

It is forbidden to use other solvent-based cleaning agents for the cleaning of coated parts of the aeroplane.