

TS glass solar filter

User manual



Introduction

Thank you for choosing a solar filter from Teleskop-Service. The following instructions will allow you to observe the sun safely for many years to come.

If you have any questions, please feel free to ask us for advice:

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WARNING!

Observing the sun involves risks, so please read these instructions carefully and also observe the instructions in the operating manual of your telescope.

General information

Handle your solar filter with care and store it in a suitable protective cover when you are not using it.

This will minimize the risk of accidental soiling or damage.

Cleaning the glass solar filter

Use a soft cloth with isopropyl alcohol to clean the outside of your filter as often as necessary. The inside of the filter is coated and can be cleaned in the same way.

Please note that the coated surface is sensitive and can be damaged or even removed by excessive rubbing!

Check for damage and covering the damaged areas

If minor damage occurs ("minor" in this case means that the damaged areas are the size of a pinprick), these must be covered before using the filter

Check the filter for damage before **EACH** use as follows: Hold the outside of the filter towards the sky and check for damaged areas, which will be visible as bright spots. **DO NOT HOLD THE FILTER TOWARDS THE SUN.**

ALL defects must be covered on the coated inner side.

Guide value for the number of defects/repairs: There may be up to approximately eight defects per centimeter of free aperture without this having a negative effect on the performance and/or safety of the filter (example: diameter of the filter aperture: 100mm -> maximum 80 repair points). You can repair the holes either with a small blob of paint, a marker with a fine tip or even with correction fluid without affecting the optical performance of the filter. Glass solar filters often have holes due to their design.

Mounting the solar filter

Before observing the sun with your solar filter, you should place it in the shade for 15 minutes so that it adapts to the outside temperature. Mount the filter by pointing the telescope upwards and carefully sliding the filter over the end of the telescope. There are several knurled screws on the side of the filter. Tighten the knurled screws hand-tight to center the filter. This will hold the filter in position even if the telescope is accidentally pointed downwards.

Be careful not to overtighten the screws. Over-tightening can not only damage the screws, but also cause material stress that can impair the image quality or even cause the glass to crack. If you tighten the screw by hand, it can expand when heated.

Finder scope

Any finder scope must always be dismantled or covered (tight-fitting lens dust cap) or also fitted with a solar filter. Looking at the sun through the viewfinder telescope without a solar filter can irreparably damage the eye in a fraction of a second.

If necessary, install a special solar finder or use the shadow cast as a guide when aligning the fully prepared telescope (i.e. solar filter fitted).

Summary

- Store the filter in the shade when you are not using it (observation break). Swivel the telescope away from the sun before removing the filter.
- Check the filter for damage before each use.
- If you do not have a solar filter on your finder scope, remove it or cover the lens.
- Allow the temperature of the filter and the telescope to equalize by first placing both in the shade for 15 minutes.
- Use a light-colored cloth to cover the tube as additional heat protection.
- Preferably use your telescope on a meadow. Air currents form above buildings and paved surfaces, which impair the image quality.
- Swivel the telescope away from the sun before removing the solar filter.
- If you notice “ghost images”, these are most likely due to internal reflections and can be corrected by tilting the filter slightly.
- Never place your filter on a smaller telescope than the one for which it is intended. This can damage the coating and/or the glass substrate of the filter.