

BAADER AstroSolar™ Safety Film

Instructions for use



AstroSolar™-Safety Film is a strongly improved product, based on Baader Solar Filter Film which had been under production already for 12 years – until 1999.

AstroSolar™-Safety Film produces a natural white solar image without false blue or orange color. Sharpness and contrast largely exceeds the quality of most commercial glass filters available on the market.

The basic film of AstroSolar™ has been tempered in an elaborate ionization process to be free of inherent stress. Due to the added processes applied AstroSolar™ attains the quality grade of a planeoptical polished glass window of high precision. AstroSolar™ must not be put under stress tension!

The technical development of AstroSolar™ was only possible due to the very high demand during the 1999 Solar Eclipse over Europe.

For your own safety please observe following conditions:

1. Do not touch the metalized surfaces with bare fingers. Fingerprints contain salty sweat and urea, which acts like a weak acid to destroy the metal layers over time.
2. During handling and cutting always place the film between two stiff sheets of paper and cut the required shape from the sandwich.
Possibly draw the required final shape of the film onto the paper before cutting the sandwich to protect the film.
3. Be attentive. AstroSolar™ looks like an ordinary piece of metalized plastic – but it is not!
Greatest care has been applied to metalize both sides of the fine optical grade carrier film without destroying its isotropic tempered state.
Never put any stress onto the film during handling or mounting – stress tension would dramatically worsen the optical properties.
Take greatest care to mount AstroSolar™ “stressfree” – but without creating ripples and cheases.
4. The metal coatings on AstroSolar™ film are equivalent to high reflective layers applied onto a telescope mirror. Treat the surfaces of AstroSolar™ with equal care as you would with your telescope mirror. If you want to “clean” AstroSolar™ from dust and pollen-grains, do not “rub” the surface. Only rinse the film with running water and add dishwater detergent. For careful wiping use pharmaceutical cotton-wool for applying and removing the detergent.
5. Before each solar session carefully inspect your AstroSolar™ filter for mechanical damages, broad scratches, streaks, extensive whipe marks and other quality degrading influences. Small pinholes do not degrade the eye safety or image sharpness of AstroSolar™!
Hold the filter at arms length towards the daylight sun to detect dangerous defects. Small pinholes may become visible but will not be dangerous, because the light going through will be dispersed across a wide area like in a “camera obscura”. This scattered light however will cast a “hue of light” to slightly overlay the solar image information and reduce image contrast somewhat.
For highest photographic performace and when using large telescope apertures at high magnification it is therefore advisable to “blacken out” these pinholes. Use thick black laquer (black paint) and directly apply the paint onto the inner (telescope) side of AstroSolar™ with a very thin, sharp brush to just cover the size of the pinhole while holding the filter towards the sun.

All this effort will be worthwhile. If treated appropriate as detailed above AstroSolar™ delivers the same image quality as a 1000 Dollar precision polished glassfilter, far better than all common “float glass” solar filters available at economy price.

Metal coatings on film are prone to aging just like the coatings of a telescope mirror. A damaged, aged, frequently cleaned film which shows large areas of scratches or whipe marks must be discharded and not be used for solar observation.

This is the reason, why we try by all means to supply a film of highest optical quality at extremely low price, to enable you to use a fresh piece of film whenever you detect severe scratches or bright zones due to improper handling.

Always store your solar filter in a closed container and avoid the film faces to rub against any other surface during transport or storage.

Warranty:

We do warrant AstroSolar™ Film to be manufactured and inspected with greatest care – especially to be free of uncoated areas or areas where the optical density is lower than the stated density, be it for AstroSolar™ Safety Film or for AstroSolar™ Photo Film

However, we do not warrant AstroSolar™ when treated or stored improperly or when the solar filter has not been inspected for damages before each observing session.

Please only use this product if you feel well informed about its properties and the requirements for safe handling.

Never leave your Solar Telescope outside unattended to prevent children or uninformed visitors from looking at the sun without proper guidance!