

# -BAADER- DIELECTRIC D-ERF FILTERS

a test review by Greg Piepol

I received the Baader dielectric ERF filter at the perfect time: just as I was setting up my equipment to image the sun. It arrived in excellent condition and without any evidence of rough handling from the carrier.

First, the dielectric ERF is a beautiful piece of equipment! Superbly machined and fit, it has the feel of a substantial component of a quality solar observing system. The custom lens cell fit the AP155 exactly. I let the filter warm up and come on band for about 10 minutes and began observing. The ASO was shifted 5 degrees C into the blue wing.

My initial observations were very positive. Since the DERF has a smaller diameter than my 150mm CERF, the view was slightly dimmed. That's a good thing. The few small filaments seemed darker without losing sight of the tenuous spicules along the limb and on the disk. The single prominence in the SW quadrant had more than enough brightness to see the structure within it. If anything, the darkness of space was even more dark (an added bonus). Optical quality of the glass is as good as it gets.

The white mechanical iris provided the extra added feature of allowing me to darken the view for the disk. Setting the iris to 80mm allowed me to darken the surface detail quite a bit and offered a rich view of the disk details. This continued down to about 50mm where the view became noticeably dim. The optimal setting was about 90mm for my eyes. Operation was perfectly smooth and, when moving the telescope, the iris stayed exactly where I placed it.

I took the opportunity to capture a few avi frames for processing. The on-screen image at full open was slightly darker than the CERF view I'm used to. I easily compensated for it by bringing up the gain, contrast and brightness slightly. The prominence showed exactly the same detail as with the CERF at a lower setting. The disk capture was similar but I left the software at the lower setting to darken the view. Closing the iris caused the spicules to completely disappear. I simply left it full open while imaging.

## SUMMARY

The dielectric ERF and iris are delightful to use. The view in my system was equal to my existing CERF. Full aperture shows wonderful color and clarity in prominences and along the limb. Closing the iris darkened the view and provided a stunning glimpse of the surface. The system performed flawlessly during imaging.



Processed D-ERF image

## SPECIFICATIONS

### Visual equipment:

- .2A Solar Spectrum ASO Ha Filter
- Astro-Physics AP155 EDT (f/9)
- Baader TZ-2 Telecentric
- AP MaxBright diagonal
- Meade 56mm Super Plossl
- The new Dielectric ERF

### Observing time:

2 hours. Seeing 5/10 – normal for the Mid-Atlantic USA. Crystal clear skies.

### Imaging equipment:

- Lumenera SKYnyx 2-2 CCD
- Lumicon .50 focal reducer
- AP900 GTO mount
- LuCam Recorder capture software



D-ERF filter with steplessly variable diaphragm