Binocular Sky Review: Opticron Imagic 8x42 TGA WP

Weight (g)	682
Field of View (°)	6.53
Close Focus (m)	2.9
Eye Relief (mm)	21
IPD (mm)	57-73
Waterproof	Yes
Prism Type	Porro
UK Guarantee	30 year
Origin	China
Body Material	Aluminium Alloy, Polycarbonate
Armour Type	Full
Nitrogen Gas Filled	Yes
Prism Material	BAK 4
Prism Coating	Multi
Lens	Fully multi-
Coating	coated
Eyecup	Lock & Click
Туре	Stop



Price: £149

Available from: First Light Optics

Initial Impressions

The binocular is of Zeiss-type construction. It has a superb feel: small, but not delicate. The rubber armour is substantial and feels "chunky", as though it would do its job properly. The centre-focus is smooth throughout its range, the right eyepiece dioptre

adjustment is quite stiff, but this is something that you will set once and leave: it will stay put. The hinge is smooth and sufficiently tight so as not to accidentally slip once it is adjusted. The twist-up eyecups "click" into place and do not move under longitudinal pressure. There is minimal rocking of the eyepiece bridge under moderate pressure and none was perceived when I held the binocular to my eyes.

The coatings look evenly applied and reflect a minimal amount of light. There is ridged baffling inside the objective tubes and the prisms appear to be cemented in place. There are tiny, almost imperceptible, cut-offs in the light path, in a different place in each optical tube, suggesting that the prisms are of the minimum size necessary.

The robust, semi-rigid case should offer good protection. The objective covers are a very good fit and stay on when you take the binocular out of its case, even when the IPD is such that the binoculars are a tight fit. The eyepieces have a single rain-guard type cover which is tethered to the strap on the

left hand side; it restricts the IPD to 67mm. The strap is of good quality and is comfortable on a bare neck.

Testing the Specifications

The aperture is the full 42mm and is not internally stopped. Examination of reflections when a bright light is shone down the objective end confirms the fully multi-coated spec. There are no grey segments in the exit pupil, confirming that the prisms are of high-index glass. The minimum interpupillary distance is only 58.5 mm, not the specified 57mm. The eye cups are 40 mm diameter, so there is 18.5mm between them at their closest; this should accommodate most, if not all, noses. The objective lenses are recessed 8mm into their barrels. The full field of view is visible when observing with spectacles with the eyecups down. With fully-corrected vision, the right eyepiece dioptre is set at zero, suggesting that it is properly adjusted. I measured close focus at 3.2 m, and there is substantial "beyond infinity" focus at the other extreme, so the binocular should be usable without spectacles by people with moderate myopia. It weighs 676g "naked", and 738g with caps and neck strap.

Under the Stars

Collimation seemed perfect. The view is very sharp over the central 90% of the field of view and is tolerable outside that region; I did not notice any vignetting at the edge. Control of false colour (chromatic aberration) is very good on axis, but is noticeable on bright objects (e.g. the lunar limb) off-axis; it was not noticeable on first magnitude stars except right at the edge of the field of view. There is some pincushion distortion: it is unobtrusive, but is sufficient to eliminate the nauseating "rolling ball" effect that can occur without it. Stray light is very well controlled: there was a small amount spurious light from the Moon, but only when it was just outside the edge of the field of view, but none detectable from Vega.

The Dumbbell Nebula shows shape, but not structure. The Andromeda Galaxy showed shape and distinct brightening to the core; I could not distinguish a sharper cut-off in brightness from the dust at the nearer edge.

This binocular is very comfortable to use. It fits nicely in the hands and the rubberised eye-cups are comfortable in the eye sockets. It is also tripod-mountable, using a standard L-bracket

Conclusions

This is a lovely little binocular for hand-held astronomy and you would need to pay a lot more to get

better optical quality in a 42mm instrument. It is comfortable to use, and would suit anyone who finds a 10x50 too big to hand-hold. My wife, who has never before found a binocular that she felt comfortable using, found that this one suited her perfectly and liked it so much that she insisted that I bought it for her.

Binocular Sky Ratings (/10)		
Sharpness of Image	10	
Size of usable field	8	
Colour Correction	8	
Control of stray light	8	
Eye relief	10	
IPD	10	
Overall Optical Quality	9.0	
Focus mechanism	10	
Right eyepiece adjustment	10	
Eye cups	8	
Hinge	10	
Armour	10	
Weight and Balance	10	
Overall Mechanical Quality	9.7	
Case	8	
Neck-strap	8	
Objective caps	8	
Eyepiece caps	8	
Value for Money	9	
Overall	9.0	

 $\underline{\text{Click here}} \text{ to see the } \underline{\text{Opticron Imagic 8x42 TGA WP}} \text{ on First Light Optics website}$

Stephen Tonkin 2015 September 11

© 2015 Stephen Tonkin under a Creative Commons BY-NC-SA License

