

TIFFEN®

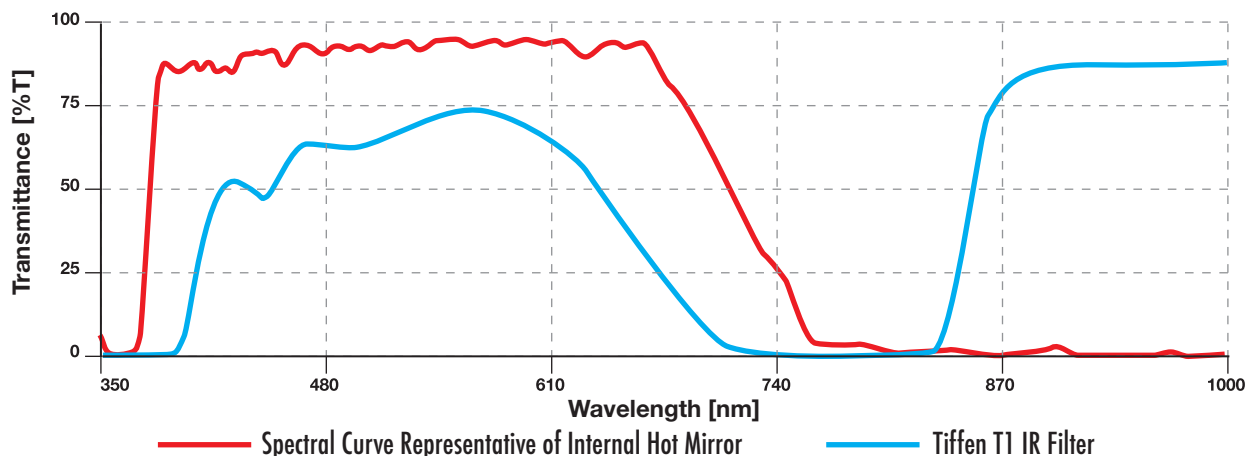
T1 IR Filter

Tiffen – the industry leader in solutions for IR pollution – once again has brought together an industry need with its innovative filter technology to develop the **New Tiffen T1 IR Filter**.

CCD and CMOS sensors are made from Silicon, which is inherently sensitive to infrared energy; therefore, digital camera manufacturers have worked diligently in making sensors that see only the visible spectrum – most notably, the Sony EX1, EX3 and F35. These cameras have very effective internal hot mirrors, blocking wavelengths above 700nm; however, this is a gradual cut off, intentionally made to preserve the red response. The Sony **EX1** and **EX3** see what Sony calls “broad spectrum color” making them very sensitive to far red. This sensitivity to red is not a negative feature – it is a very positive feature!

NTSC and PAL formats have always had limitations – bright reds in particular – because of the narrow bandwidth, reds had a tendency to smear. However, with the advent of digital cinematography and digital television, today’s cameras need to capture a much wider color gamut. The IR blocking technology now used in the Sony EX1 and EX3 allow the DOP to capture subtle hues of red never before seen digitally. To preserve as much of the camera’s enhanced red response as possible, a small portion of light must pass through the edge of the visible spectrum, causing the camera to see red where the naked eye cannot. Opening up this color channel leaves your images vulnerable to IR contamination – in particular dark fabrics – greens become a reddish muddy brown and blacks have a magenta hue.

This is where the Tiffen T1 IR filter makes capturing those subtle hues of red effortless, while maintaining crisp blacks and assisting the camera in capturing the wide color gamut it was designed for – with minimal light loss – 1/2 stop.



This filter is manufactured using Tiffen’s proprietary ColorCore™ technology, where each effect is captured between two pieces of glass. This allows Tiffen to grind and polish both surfaces providing the cinematographer with perfect parallelism and worry free handling.

This filter is made with Water White glass and is available in sizes 77mm (thin profile wide angle ring), 138mm, 4x4, 4 x 5.65 and 6.6 x 6.6. Other sizes are available upon request.

NOTE: The T1 IR filter contains no dichroic coating; therefore, it will not vignette green, magenta or cyan at wide angles. This filter can be stacked with Neutral Densities up to 0.9; however, for best results we recommend using the Tiffen Full Spectrum IRND’s when heavier densities are required.