

HOW TO USE THE SWF-100 MONOCHROMATIC FILTER FOR ANALYZER ROTATION MEASUREMENTS IN LOW-STRESS GLASS

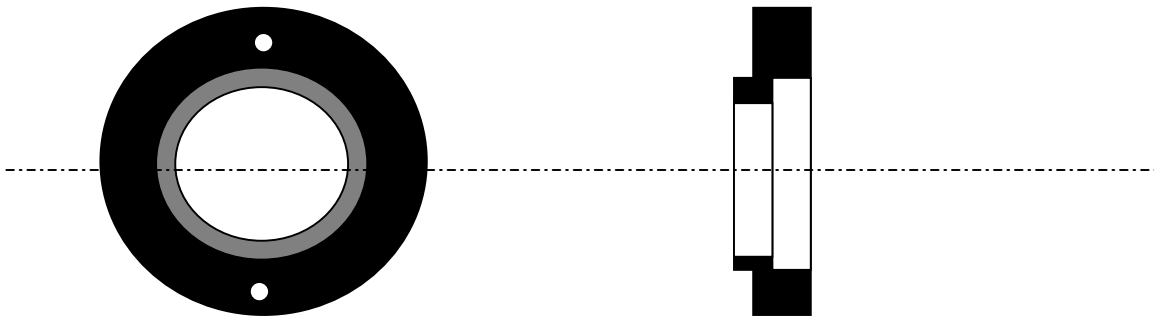


Figure 1. SWF-100 (Part Number SWF-100-LF)

In some applications, very small retardation is observed, resulting in a loss of contrast in the black fringe used to measure stress at a specific Point of Interest (POI). The SWF-100 Monochromatic Filter eliminates this problem, offering a clearer view of the black fringe by filtering out wavelengths below or above approximately 565 nm without requiring a monochromatic light source.

1. Set up the sample for Analyzer Rotation measurement on your polarimeter as instructed in the instrument manual.
2. Position the SWF-100 filter such that it is between the analyzer and the eye of the inspector (Figure 2).

CAUTION: Do not place the filter or any item on the analyzer assembly surface.

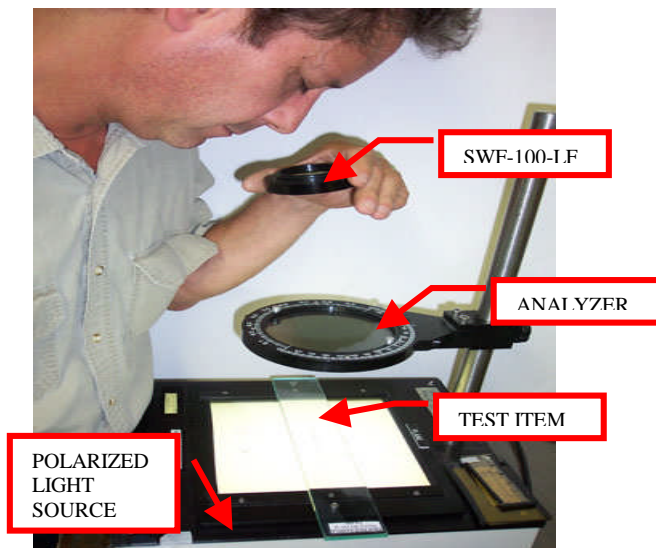


Figure 2. Using the SWF-100-LF Monochromatic Filter with PS-100 Polarimeter

3. Move the SWF-100 filter to view the point of interest. The zero order (black) fringe will appear. (Figure 3)

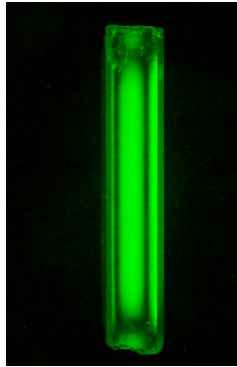


Figure 3. Black (Zero-Order) Fringes in a Glass Slice as seen through SWF-100 filter.

4. While looking at the POI through the filter, rotate the analyzer to bring the center of the black fringe to the POI and take a reading as instructed in the instrument manual.

Note: If stress in the sample is high enough, more than one fringe may be present. All fringes will be observed as black and these instructions will not apply. Consult Strainoptics for assistance.

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