58-B10/58-B20 Secchi Disk

Limnological, 200 mm

Purpose:

- To give an indication of transparency or index of suspended matter in the water. The smaller the number the more suspended materials in the water.

(Since **Wildco**® *has used the same color white acrylic since 1938, you can compare your results with studies from prior decades.)*

- Can also be used to determine the depth of light penetration and a rough estimate of the extent of the littoral zone.
- Can be used as a sounding line and weight to measure the depth of the water at any given point.
- Requires a line for operation

Introduction:

Need to determine how clear the water is? This standard freshwater secchi disk has four quadrants, two white and two black. When lowered into the water, the depth at which the black and white quadrants can no longer be distinguished is a measure of the transparency or turbidity index.

The 200 mm (7-7/8") diameter plastic disk includes an attached stainless steel eye bolt and weight fastened to the underside. A ring fixed at the center of the upper surface provides the means to attach a graduated line. The weight assures rapid sinking in a vertical position.

Beware: Any other shapes, sizes and colors are not true Secchi Disks. Any index obtained is not usable and cannot be compared with prior data.

The Secchi disk must be attached to a line, either 1/8" or 3/16" in diameter. (Line, either calibrated or uncalibrated, can be ordered from **Wildco®**).

Methods for the measurement of light penetration in water are classed in two general groups: limit of visibility tests and light measurement. For these types of measurements, the Secchi disk is the most popular instrument for measuring water transparency, even though it is capable of providing only an approximate average index. This is largely due to currents, drifts, and light reflection from the surface of the water.

How To Use:

1. Choose clear skies and smooth water conditions. Use on the shaded or protected side of the survey vessel. Use only with minimal rippling or wave action.
2. If your line is not calibrated, calibrate your line in meters and half-meters with two different colors of permanent marker - one for meters, one for half meters.
3. Tie the line securely to the eyebolt attached to the disk. [If using an already marked line, tie so that the first half-meter mark is one half meter from the disk face.]
4. Lower the disk until you are no longer able to distinguish between the black and white quadrants.
5. Count the marks on the line as it is being lowered and make a depth reading at this point. This reading or index is the depth of the disk as indicated by the marks on your line. Lower it further until it is completely out of sight and then begin to raise it slowly.
6. When you've reached the point where you can just distinguish between the black and white quadrants, take another reading.
7. Repeat three times, recording each reading.
8. Calculate the average of all three readings to determine your final transparency index.

Additional Materials:

7900-A10 20 m Line/ float
1/8" diameter, uncalibrated, polyester

63-A12 20 m Line/ float
1/8" diameter, calibrated, polyester

- Water telescope is recommended in adverse weather conditions

Warranty and Parts:

We replace all missing or defective parts free of charge. All products guaranteed free from defect for 90 days. This guarantee does not include accident, misuse, or normal wear and tear.

Maintenance:

Wildco® equipment is designed to be used year after year, study after study. Simply follow these common sense precautions. All aquatic samplers should be rinsed in fresh water after each day's use, then air dried completely. The line should be washed and hung out loosely to dry in the open air.

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