

Limpidity Meter for Rosè and White Wine

HI 93125 is a portable, microprocessor-based limpidity meter, specially designed for the making of white and rosè wines.

Wine turbidity, like all other liquids, is determined by suspended small particles that deviate light beams. During the wine making process, the wine turbidity can be caused by several phenomena that reduce the limpidity degree and render the product less appreciable for the customer. Reduced wine limpidity often goes together with unpleasant fragrance and flavor. The most common causes of wine turbidity are salts of tartaric acid, salts of iron and copper and enzymes.

To prevent turbidity, wine can be treated with particular additives, which act as wine limpidity stabilizers for extended period of time.

During wine production the limpidity is measured through three critical steps: *alcoholic fermentation, malolactic fermentation and filtration.*

Normally the limpidity value for bottled wine should not be higher than 4.00 FTU.

Limpidity value (FTU)	Appearance
0.10 to 0.50	very limpid
0.50 to 1.00	limpid
1.00 to 1.80	slightly blurred
1.80 to 3.00	blurred
3.00 to 4.00	opalescent
> 4.00	cloudy

Ordering Information

HI 93125 is supplied complete with 2 glass cuvetts with caps, HI93703-0, HI93703-10 and HI93703-05 calibration solutions, tissue for wiping cuvetts (HI731318), 4 alkaline batteries (1.5V AA), rugged carrying case and instructions.



Principle of Operation

HI 93125 has been designed to perform measurements according to the ISO 7027 international standard. The instrument functions by passing a beam of infrared light through a vial containing the sample being measured. The light source is a high emission infrared LED with a wavelength at 890 nm, ensuring that the interference caused by colored samples is minimum. A sensor, positioned at 90° with respect to the direction of light, detects the amount of light scattered by the undissolved particles present in the sample. The microprocessor converts such readings in FTU (=FNU) values.

Specifications

HI 93125	
Range	0.00 to 50.00 FTU (FNU); 50 to 700 FTU (FNU);
Resolution	0.01; 1 FTU (FNU)
Accuracy	±10% F.S. (10 to 50 FTU) ±5% F.S. (0 to 10 and 50 to 700 FTU)
Calibration	3 points (0 FTU, 10 FTU, 500 FTU)
Light Source	infrared LED @ 890 nm
Light Source Life	life of the instrument
Light Detector	silicon photocell
Battery Type / Life	4 x 1.5V AA / 60 hours or 900 measurements; auto-off after 5 minutes of non-use
Environment	0 to 50°C; RH 95% non-condensing
Dimensions / Weight	220 x 82 x 66 mm (8.7 x 3.2 x 2.6") / 510 g (1.1 lb.)

Accessories

HI 731313	Maintenance kit: rugged carrying case including HI 93102-0 and HI 93102-20 calibration solutions, HI 93703-50 cuvet cleaning solution, 1 tissue for wiping cuvetts and 2 cuvetts	HI 93703-0	AMCO-AEPA-1 calibration solution @0 FTU (30 mL)
HI 731318	Tissue for wiping cuvetts (4 pcs)	HI 93703-10	AMCO-AEPA-1 calibration solution @10 (30 mL)
HI 731321	Spare glass cuvet (4 pcs)	HI 93703-05	AMCO-AEPA-1 calibration solution @500 FTU (30 mL)
		HI 93703-50	Cuvet cleaning solution, 230 mL

For accessories, see sections U and V.