

WQS Color

decision-making tool

Measuring wine color objectively

Color is a key factor in the quality of wine that can be observed by the taster or the consumer immediately. Color evaluation in the wine industry is commonly carried out measuring absorbances at 420, 520 and 620 nm, although this does not allow to define color objectively. The CIELab color space, an alternative approach to color measurement largely used in other industries, lets you define color accurately as it is perceived by the human eye, thanks to the Cartesian coordinates $L^*a^*b^*$ and the polar coordinates $L^*C^*h^*$. The Color device is a portable colorimeter that measures wine color in the CIELab system, based on reflectance technology. There are many different applications for this analyzer, including the definition of a “target” color to achieve, or monitoring color during the winemaking process, using real-time checks in the winery.



PREMIUM FEATURES INCLUDE:

- Technology based on the principle of reflectance
- Accurate, real-time measurements performed directly on the sample or in comparison with a standard
- Results expressed using $L^*a^*b^*$ and $L^*C^*h^*$ coordinates, depending on the CIELab system
- Values closely correlated with those calculated from the visible spectrum according to the method recommended by the OIV
- Integrated calibration
- A single glass measurement cell (0.5 cm) whatever the color of the wine analyzed (white, rosé or red)
- No need to prepare samples
- Portable, compact, light weight, flexible
- Option to store up to 350 measurements and record up to 30 reference colors (standard)

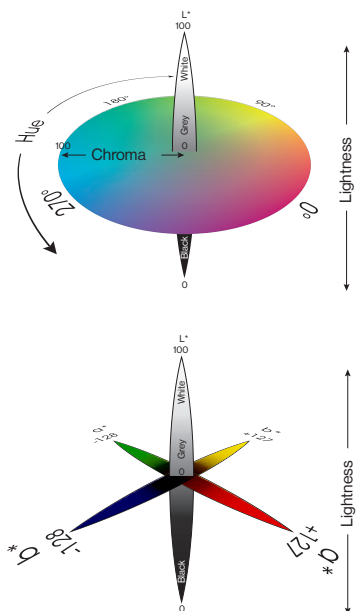




The color coordinates:

the L*a*b* and L*C*h* coordinates let you characterize different components of the color.

- L* represents lightness, with values ranging from 0 (black) to 100 (white). The lower the L* value, the “darker” the color, the higher the L* value, the “lighter” the color
- The a* axis goes from green (a<0) to red (a>0). The higher the a* value, the more red there is in the color
- The b* axis ranges from blue (b<0) to yellow (b>0). The higher the b* value, the more yellow there is in the color of the wine
- The C* axis represents saturation, ranging from 0 in the middle of the circle (unsaturated, neutral color) to 100 at the edge of the circle (saturated color or pure color)
- The h* axis represents nuance. Angular measurements from 0° (red) to 90° (yellow), 180° (green), 270° (blue) and going back to 0°



Applications:

- Assessment of the color potential of grapes: vintage, variety, comparison of one year with another
- Monitoring color extraction for whites, rosés and reds during the pre-fermentation stages: skin maceration, maceration at high temperatures, thermovinification
- Correction of the color of must or for the finished wines: fining, impact of SO₂
- Stabilization of the color: fining test, monitoring the ageing process in the cask, monitoring microoxygenation, SO₂ addition test
- Achieving the preferred final color by comparing with a reference sample: blending, defining a color target in the specifications, negotiating the purchase price depending on the assessment of winecolor

In brief

The Color is the first portable colorimeter adapted for the winemaking process that can be used in real time in the winery. This means that it represents the ultimate alternative to current systems that involve taking a sample, transporting it to a laboratory, analyzing it and collecting the analytical results after a certain period of time.