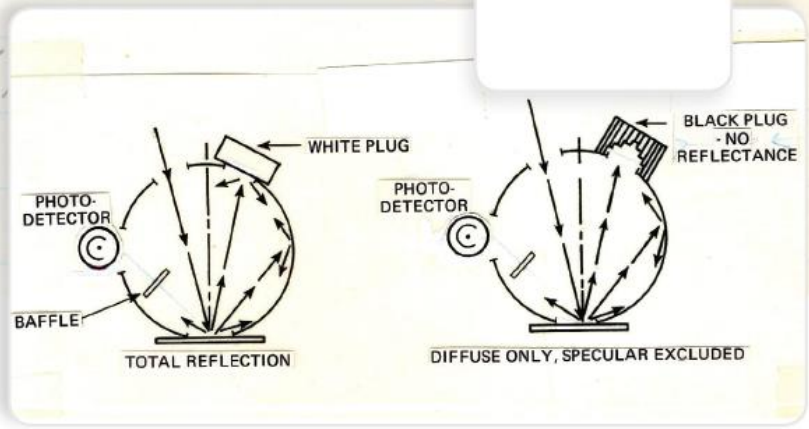
Measurement Method

MM 5227.00



Measuring Sports Drinks

with Vista

Sports drinks have grown in consumer popularity to replace water and electrolytes lost through sports and exercise activities. Major brand owners know the role that color and appearance consistency play in a consumer's decision to purchase their products. Vista provides just the right color tools to set quality standards for sports drinks.

Vista measures transmittance Haze% and visible-range color in a single measurement. Vista includes easy-to-navigate EasyMatch Essentials. This quality control software provides the scales and indices important to the beverage industry including CIELAB, and Haze% in conformance with ASTM D1003 Procedure B. With modern data communications including USB, Ethernet, and Wi-Fi, and a capacitive high-resolution color touchscreen display, Vista sets a new standard for the color and appearance measurement s of transparent beverages.

The Application

Vista's onboard software, Essentials, and HunterLab's EasyMatch QC PC based software both include Haze% [D65/10] index. Users can use any flat cell from 0-100mm pathlength to get both color and haze% results in a single measurement for transparent and translucent beverages including sports drinks. If a round vial is preferred, HunterLab offers a round vial holder that includes a light focusing lens specifically designed to measure Haze%.

Recommended Parameters:

Color Scale	**CIELAB**
Indices	**Haze%**
Illuminant/Observer	**D65/10**
Accessories: **04-4592-00**	**20mm large format cell**
D02-1017-192	**Multifunctional Baseplate**

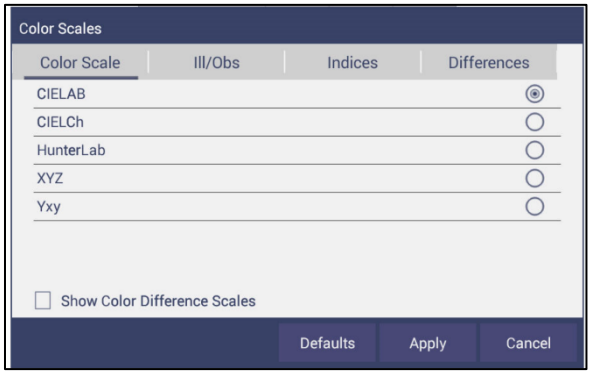
Required Accessories: **DI Water**

Measurement Method-Standalone (Using Vista Essentials)

1. **Configure Essentials** to measure and Report color and Haze%. The following is an example using Vista multifunctional baseplate (HL PN#D02-1017-192) and 20mm large format cell (HL PN# 04-4592-00) to measure beverages and report CIELAB and haze%.

Multifunctional Baseplate D02-1017-192

   a. From ***WORKSPACE > COLOR SCALES***, click the **COLOR SCALE** tab and select ***CIELAB.***

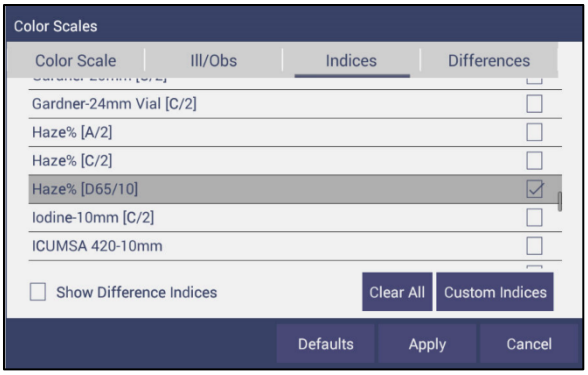


Select Color Scale

b. Select the next tab for **ILL/OBS** tab, select **D65/10.**

Select ILL/OBS

c. Click the **INDICES** tab and check ***HAZE%*[D65/10]**. Click ***APPLY*** to add these scales and indices to the Color Data Table view.



Select Indices

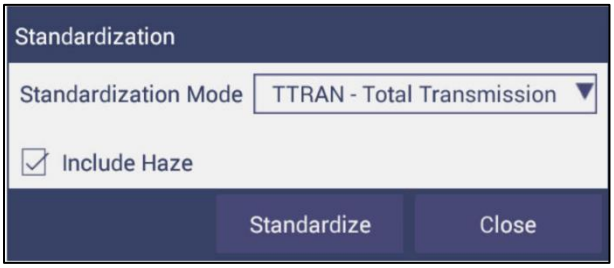
Workspace Setup

d. To save the above setup for future use, click ***WORKSPACE > SAVE WORKSPACE***. When prompted to **SAVE**, select ***NO*** to create a new Workspace Name. Enter the **NAME** of the Workspace.

2. **Standardization**.

   a. Fill the 20mm cell with DI water and place it in the multifunctional baseplate on the sphere side of Vista.

   b. Click the ***STANDARDIZE*** button at the bottom of Essentials screen. Select ***TTRAN*** mode and check ***INCLUDE HAZE*** for standardization and measurements. Press ***STANDARDIZE*** to continue.



Select Mode and Press Standardize

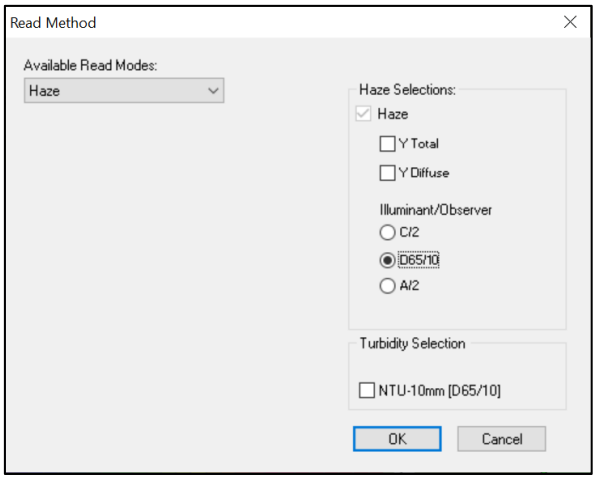
   c. After standardization is done, take a sample measurement of DI water. Results should read: L*= 100, a*= 0, b*= 0, Haze%=0.

Measurement of DI Water

3. **Sample Measurement**.
    a. Fill the cell with the sample and attach it to the sphere side measurement port. Click the ***READ*** button (green lightning icon) to take a sample measurement.

Measurement Method-Connect to EasyMatch QC

1. **Connect Vista with EasyMatch QC**. Please review [this article at support.hunterlab.com for step by step instructions]
2. **Configure EasyMatch QC** to measure and report CIELAB and Haze%. The following is an example using Vista multifunctional baseplate D02-1017-192 and 20mm 04-4592-00 large format cell to measure transparent beverage and report CIELAB and Haze%.
    a. In EasyMatch QC, go to ***OPTIONS > READ METHOD***, and select **HAZE** method from the drop down menu. Check **HAZE%** index and **ILL/OBS** as ***D65/10***. Click ***OK*** to apply.



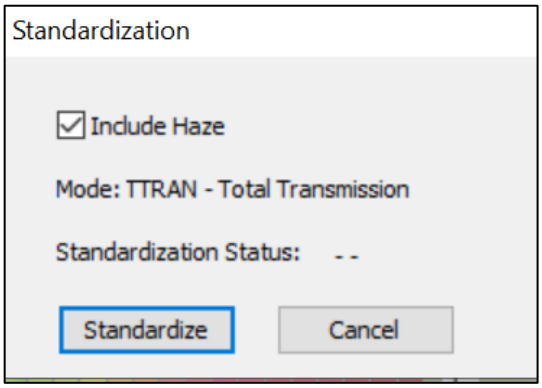
READ METHOD > HAZE

    b. **Right-click** on the **COLOR DATA TABLE** view and select ***CONFIGURE***. Add **CIELAB** into Color Data Table view.

3. **Standardize**.

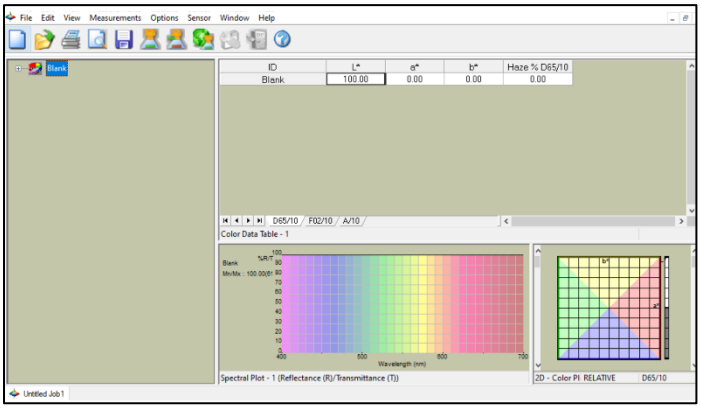
    a. Fill the 20mm cell with DI water and place it in the multifunctional baseplate on the sphere side of Vista.

    b. ***SELECT SENSOR > CONFIGURE > SET MODES***. Select ***TTRAN MODE*** and include ***HAZE***. Click the ***STANDARDIZE*** button.



Set Mode for Standardization

    c. After standardization is done, take a sample measurement of DI water. Make sure that the values for DI Water are: L*= 100, a*= 0, b*= 0, Haze%=0.



Measurement Screen

4. **Measure Samples**. Fill the 20mm cell with the sample and place it in the multifunctional baseplate on the sphere side of Vista. Click ***READ SAMPLE*** in EasyMatch QC to take a sample measurement.

###

ABOUT HUNTERLAB

HunterLab, the first name in color measurement, provides ruggedly dependable, consistently accurate, and cost effective color measurement solutions. With over 6 decades of experience in more than 65 countries, HunterLab applies leading edge technology to measure and communicate color simply and effectively. The company offers both diffuse/8° and a complete line of true 45°/0° optical geometry instruments in portable, bench-top and production in-line configurations. HunterLab, the world's true measure of color.