



VS450 Advantages

VS450 is a non-contact 45/0° geometry benchtop spectrophotometer designed for color and gloss measurements on many types of wet and dry samples including paints, powders and plastics. It includes an integrated gloss sensor providing 60 degree correlated gloss values, and has a versatile form factor which simplifies measurements on two and three dimensional objects.

Product Features:

- Non-contact color measurement allows sample measurements from a distance, eliminating surface distortion caused by contact based measurement methods
- Full system LED illumination provides years of reliable performance
- Line of Sight[™] visibility to the sample enables technicians to quickly and easily position the sample for measurement
- Active Visual Targeting[™] projects a prominent illuminated target ring onto the sample for precise and accurate measurements
- Dual measurement spot sizes,
 6mm (1/4") and 12mm (1/2") which can quickly and easily be switched without the need to recalibrate
- Integrated gloss sensor provides 60° correlated gloss values
- Versatile design improves measurement capabilities on two and three dimensional objects
- Best in class color accuracy and repeatability
- Patented technology

VS450 is a solution for many of the measurement problems that have remained unsolved. Products that normally require protection from physical contact such as liquids and pastes, or in which the surface appearance is changed by the presentation method, such as when the sample is pressed behind glass, can now be measured in their natural, unaltered state, as the eye sees the sample.



Line of Sight™ viewing with Active Visual Targeting™





Paint Applications

Reduce formulation and QC time by measuring paint in the wet. When used with X-rite's Color iMatch, the user can adjust their matching target to be lighter or darker than their standard, improving formulation time. And the ability to correlate a wet to dry sample shaves valuable QC for improved productivity and reduced downtime



Cosmetic Applications

Cosmetic products range in material from powders to pastes, all of which are difficult to measure with traditional contact based instruments. Sample presentation methods such as glass barriers often distort the appearance of the material. VS450 eliminates this surface distortion with its unique ability to measure without contact, yielding truer results more representative of what the eye sees.



Odd Shaped Applications

The unique form of VS450 allows easy and fast measurements on odd shaped samples such as molded plastics, china, plastic ware, cans and bottles, extruded and molded plastics, furniture pulls and knobs and other difficult to measure objects.



Other Applications

Powders

Talc, plastic dispersions, pigments, detergent...

Processed Foods

Powdered cheese, cocoa, powdered milk, butter, meats, yogurt...



Liquids, Creams and Pastes

Hand lotion, suntan lotion, motor oil, latex caulk, soap, adhesives...

Textured Soft Goods

Textile, suede...



VS450

Technology That Means Business





X-Rite: Your source for accurate color. On time. Every time.

X-Rite is a world leader in providing global color control solutions for manufacturing and quality management requirements. We lead the industry in offering service options to ensure uninterrupted performance of all X-Rite products. Training and educational resources are available globally and online for both new and experienced users to optimize their color measurement capabilities.

Visit xrite.com for more information about X-Rite products. X-Rite customers worldwide may also call the Applications Support team at CASupport@xrite.com or Customer Service at 800-248-9748.

SPECIFICATIONS:

Instrument type: Spectrophotometer with gloss sensor

Geometry: 45/0° dual illumination Illumination: Full spectrum LED

Spectral engine: True Dual beam, 31 channel

Spectral range: 400 – 700 nm

Spectral interval: 10nm measured, 10nm output

Measurement range: 0-150% reflectance

Calibration interval: once per week or temperature shift >

14° C (25.2°F) (self detected) 6mm (1/4") and 12mm (1/2"

Measurement spot size: 6mm (1/4") and 12mm (1/2")
Measurement distance: 38mm (1 ½") nominal lens to

measurement surface

Short term

Repeatability: 6mm 0.035 dE_{ab} Maximum

(white ceramic tile)

12mm 0.025 dE_{ab} Maximum

(white ceramic tile)

Inter-instrument

agreement: 6mm 0.15 avg. dE_{ab} (12 BCRA tiles)

12mm 0.15 avg. dE_{ab} (12 BCRA tiles)

Gloss Geometry: $45/0^{\circ}$, 60° Correlated Gloss Repeatability: 0-10 GU, \pm 0.2 GU

10-100 GU, ± 0.6 GU

Gloss Reproducibility: 5-92 GU

3.0 GU maximum, 1.5 GU average

Operating temp: $10^{\circ} - 40^{\circ}\text{C} (50^{\circ} - 104^{\circ}\text{F})$ Humidity: 0-85% relative non-condensing Operating voltage: $24\text{v} \pm 2 \text{ VDC } @ 1.2 \text{ A Max}$

Communication: USB 2.0

Storage: $-20^{\circ} - 70^{\circ}\text{C (4°F} - 158°F)$ Lamp life: >20 million flashes

Functional size: L: 9.75 in. (24.80 cm), W: 6.0 in. (15.24 cm),

H: 5.57 in. (14.60 cm)

Functional weight: 4.931 lbs (2.24 kg)

Safety Compliance: UL 61010-1, CSA 22.2 No. 1010.1

and IEC (EN) 61010-1

Usage: Indoor Only
Altitude: 2000 m
Pollution Degree: 2

Overvoltage: Category II

Design and specifications subject to change without notice.

 $12 \, \text{mm}$



6_{mm}

Dual Aperture Sizes (shown actual size)

