VW Absolute Specular Reflectance Accessory

for the Cary 4000, 5000, 6000i, or 7000 UV-Vis-NIR spectrophotometers



High precision absolute specular reflectance measurements

The VW SRA is designed to measure the absolute specular reflectance of light from smooth solid materials at near normal incidence (7 °).

The minimum sample size is 25 mm diameter for two reflections and 12 mm diameter for a single reflection. The maximum sample size is 100 mm diameter.

"VW" describes the light path through the accessory in the reference and measurement positions. The design features a kinematically mounted spherical mirror, which is used for both calibration and sample measurement. With the exception of the sample, the same optical elements are always in the light path, providing a truly absolute reflectance measurement. Absolute measurements remove any need to correct results against standard reference materials.

The VW SRA optical design provides the functionality for:

- Real time comparison of coated and uncoated substrates
- Reflectance, transmittance, and absorptance measurements of nonscattering transparent materials, without touching the sample
- Transmittance measurements of highly transparent films, using a double pass through the sample when in the "V" measurement position
- Single bounce reflectance measurement configuration for extreme antireflection coatings (< 0.1 %R)

The extended sample compartment (sold separately) is required for use with the VW SRA. An automated rear beam attenuator is optional (when measuring samples of very low reflectance).

For more information:

www.agilent.com/chem/uv

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Optical diagram of the VW SRA accessory:

- 1. Incident light
- 2. Movable spherical mirror
- 3. Sample



The accessory measures light reflected from a sample surface at a near-normal (7°) angle of incidence.

