

OmniDR / Omni-DR300 / Omni-DR600

OmniDR Diffuse Reflectance Measurement Systems

An integrating-sphere system measures wavelength-dependent diffuse reflectance with monochromatic illumination. DR300 handles powders; DR600 accommodates flat materials and adds transmission measurement.

1. Monochromatic light

2. Sample + integrating sphere

3. Diffuse reflectance

Best suited to

Powders, fabrics and scattering materials that cannot be characterised by specular reflection alone.

Configuration

Choose powder or flat-sample geometry and define the wavelength interval. Reference standards, sample packing and sphere geometry must be included in a reproducible measurement procedure.

Specifications

Published parameters	
Spectral interval	350–2500 nm
Resolution	<2 nm
Scan step	0.2–100 nm
Wavelength accuracy	Better than ± 0.2 nm UV–Vis; ± 0.5 nm NIR
Photometric accuracy	Within 1% UV–Vis; 2% NIR

Sample geometries

Platform	Sample handling	Measurement
Omni-DR300	Powder drawer; typical $\varnothing 10 \times 3$ mm sample	Diffuse reflectance
Omni-DR600	160 × 160 mm platform; <5 mm thick for transmission	Diffuse reflectance and transmission

Measurement features

- Monochromator and integrating-sphere collection.
- Powder drawer or flat-sample platform.
- Polarisation-dependent configurations available.

Configuration note

Include the reference standard, calibration interval and sample geometry in the requested configuration.

Full configuration: www.precisometer.com/spectroscopy/spectral-imaging/omnidr