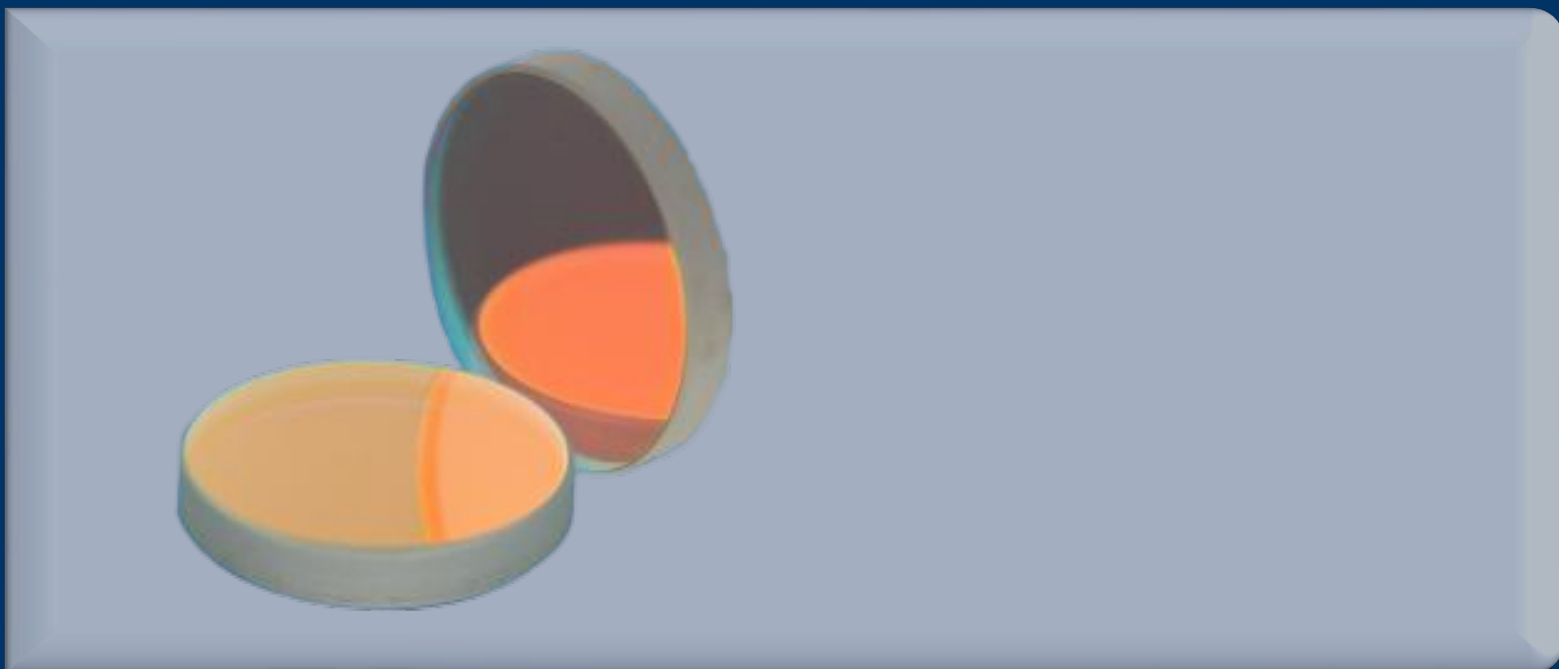


Optical Mirrors

Broadband Dielectric Mirrors

The Efficient Universal Solution for VIS to NIR

- Superior Reflectivity
- Hard Dielectric Coating
- Broad Ranges
- Cost-Effective



One Platform Many Possibilities

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Get a Quote



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Overview

Efficiency Redefined: Durable, High-Reflectivity Mirrors for Every Wavelength

The VenusLab VLBB Broadband Dielectric Mirror Series is engineered to meet high-reflectivity demands from visible to near-infrared spectrums. By depositing alternating layers of high and low refractive index materials on a K9 substrate, we create a dense dielectric stack.

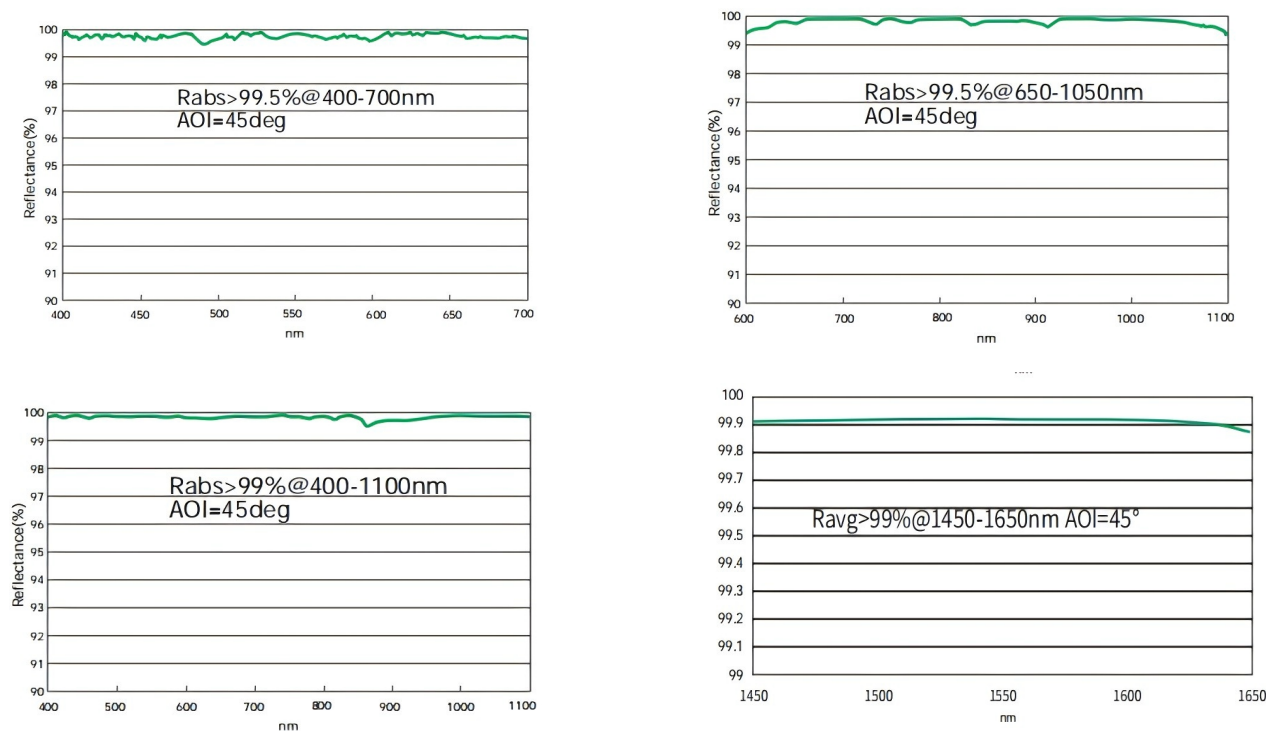
This process not only boosts reflectivity to **99.0% ~ 99.5%** but also eliminates the oxidation and absorption issues common with metallic mirrors. Available in standard **45° AOI (Angle of Incidence)** and select 0° models, the coating's superior mechanical hardness withstands repeated cleaning, making it a reliable partner for long-term optical system construction.

Key Applications

- **Beam Steering** : General-purpose folding of laser beams in labs.
- **Microscopy & Imaging** : Maximizing signal strength in fluorescence or visible imaging systems.
- **Diode Laser Systems** : High efficiency reflection for pump lasers or NIR diodes.
- **Telecom Testing** : C-Band and L-Band optical setups (1450-1650nm).

Reference Curve Diagram

Reference Curve for Broadband Dielectric Mirrors



Qualification

Broadband Dielectric Mirror Technical Specifications

Technical Parameter	Specification Data
Substrate Material	K9 (BK7 Equivalent)
Coating Type	Multi-layer Broadband Dielectric
Reflectivity	99.0% ~ 99.5% (Depending on range)
Surface Quality	High mechanical hardness, Cleanable
Clear Aperture	> 90%
Standard Incidence Angle	45° (Standard), 0° (Select Models)
Damage Threshold	Higher than metallic films

Selection Chart

VLBB Series Ordering Information & Model List

Model	Angle (°)	Wavelength (nm)	Dia (mm)	Thk (mm)	CA	R (%)
VLBB-K9-20-VIS	45	400-700	20	4	>90%	99.5
VLBB-K9-25A-VIS	45	400-700	25.4	5	>90%	99.5
VLBB-K9-30-VIS	45	400-700	30	5	>90%	99.5
VLBB-K9-50-VIS	45	400-700	50	5	>90%	99.5
VLBB-K9-12-NIR	45	650-1050	12.7	3	>90%	99.5
VLBB-K9-20-NIR	45	650-1050	20	4	>90%	99.5
VLBB-K9-25A-NIR	45	650-1050	25.4	5	>90%	99.5
VLBB-K9-30-NIR	45	650-1050	30	5	>90%	99.5
VLBB-K9-50-NIR	45	650-1050	50	5	>90%	99.5
VLBB-K9-25A-WIDE	45	400-1100	25.4	5	>90%	99.0
VLBB-K9-30-WIDE	45	400-1100	30	5	>90%	99.0
VLBB-K9-50-WIDE	45	400-1100	50	5	>90%	99.0
VLBB-K9-12-IR	45	1450-1650	12.7	2	>90%	99.0
VLBB-K9-25A-IR	45	1450-1650	25.4	5	>90%	99.0
VLBB-K9-50-IR	45	1450-1650	50	5	>90%	99.0
VLBB-K9-25A-VIS-0	0	400-700	25.4	5	>90%	99.5
VLBB-K9-30-VIS-0	0	400-700	30	5	>90%	99.5

Service & Support

We are dedicated to delivering exceptional optoelectronic solutions to every client. From precision manufacturing and secure delivery to full-lifecycle technical support, we are here to ensure a seamless and reliable experience at every step.

1. Warranty Policy

Quality First, Worry-Free Operation

Warranty Period: We offer a **two-year** warranty service for all of our core optoelectronic products, effective from the date of shipment.

Coverage: We provide free repair or replacement services for malfunctions caused by material defects or workmanship errors under normal operating conditions.

Rapid Response: Upon receiving a warranty claim, we guarantee to initiate the assessment process within **24 hours** to minimize your equipment downtime.

2. Technical Support

Expert Team, Full-Process Guidance

Technical Consultation: Our team of senior optical engineers provides **24/7 online support** to assist with installation, commissioning, optical path alignment, and parameter optimization.

Scheduled Maintenance: We offer full-lifecycle maintenance recommendations, including firmware upgrades, optical component cleaning guidelines, and precision calibration services.

Training Services: We provide customized remote or on-site operational and safety training to ensure your team can operate the equipment efficiently and safely.

3. Logistics & Delivery

Precision Packaging, Global Reach

Professional Packaging: Given the fragile nature of optical instruments, we utilize industrial-grade shockproof, anti-static, and moisture-proof vacuum packaging to ensure zero damage during transit.

Logistics Partners: We partner with top-tier global logistics providers (**DHL / FedEx / UPS / SF Express**) to offer reliable shipping with real-time tracking.

Shipping Insurance: All shipments are fully insured to eliminate logistics risks.

4. Compliance & Certification


Strict Standards, Total Compliance

Quality Certification: Our manufacturing process is **ISO 9001 certified**, and our products comply with international standards such as **CE** and **RoHS**.

Export Compliance: "Committed to environmental responsibility, all our products comply with **RoHS 2.0** and **REACH** standards, ensuring safety and global compliance."

Explore Series

Model	Thk (mm)	Angle (°)	R (%)	CA	Dia (mm)	Wavelength (nm)
VLBB-K9-25A-VIS	5	45	99.5	>90%	25.4	400-700
VLBB-K9-25A-NIR	5	45	99.5	>90%	25.4	650-1050
VLBB-K9-25A-IR	5	45	99.0	>90%	25.4	1450-1650

 Get in touch with our team to explore configurations, request a quote, or learn more about customized solutions tailored to your needs.

Let us help you move science forward—faster and smarter.

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