

# Optical Prisms

## Equilateral Prism

Classic dispersive element for efficient spectroscopy.

- Superior Dispersion Capability
- Optimized for Minimum Deviation
- Versatile Material Options
- Precision Optical Surface



## One Platform Many Possibilities

Contact Us [sales@venuslabtech.com](mailto:sales@venuslabtech.com)

Get a Quote



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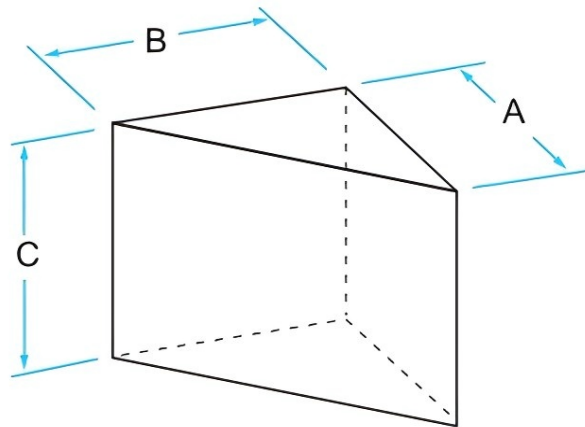
## Overview

### Classic Wavelength Separation: High Dispersion via 60° Symmetry

Our **Equilateral Prisms** (also known as Dispersing Prisms) feature three equal 60° angles and are the component of choice for wavelength separation based on refractive index differences. Unlike diffraction gratings, these prisms offer superior light throughput without the interference of overlapping diffraction orders, making them essential for high-precision spectroscopic instruments.

These prisms are designed to operate at the **Angle of Minimum Deviation**. In this configuration, light travels parallel to the base, minimizing Fresnel reflection losses while maximizing the clear aperture. We offer these prisms in various substrates, including K9 (N-BK7), dense flint glass (SF11/F2) for higher dispersion, and UV Fused Silica, to suit diverse spectral requirements.

### Structural Diagram:



## Qualification

### Technical Specifications

Parameter	Specification
Material	K9 Grade A Glass (N-BK7 Equivalent)
Geometric Shape	Equilateral Prism (60°-60°-60°)
Dimension Tolerance	+0.0 / -0.1 mm
Angle Tolerance	± 3 arc min (Standard)
Surface Flatness	/4 @ 632.8 nm
Surface Quality	40-20 Scratch-Dig
Clear Aperture	> 90% of Surface Dimensions
Bevel	0.25 mm x 45° (Protective)
Coating	Uncoated (Standard)

## Selection Chart

### Ordering Information

Item No.	Side Length (L) (mm)	Thickness (H) (mm)	Material
VLEP20-20	20.0	20.0	K9 (N-BK7)
VLEP25.4-25.4	25.4 (1")	25.4	K9 (N-BK7)
VLEP30-30	30.0	30.0	K9 (N-BK7)

## 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	Surface Accuracy	A=B=C(mm)	Angle Offset
VLEP20-20	/4	20	60s
VLEP25.4-25.4	/4	25.4	60s
VLEP30-30	/4	30	60s

 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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