

Laser Safety FAQs

Description

[/su_spoiler] [su_spoiler title="How do I find appropriate laser protective eyewear?" open="no" style="fancy" icon="chevron" anchor="" anchor_in_url="no" class=""] Laser safety eyewear must be ANSI certified. Certified glasses will be labeled with the wavelengths covered along with the optical density (OD) for those wavelengths.

The OD required for a laser may be found through [Kentek's Easy Haz calculator](#). If your laser is broadband or has a very short (ns-fs) pulse duration, finding acceptable glasses may be more challenging.

Another concern is the visible light transmission (VLT) of the glasses, which will be given as a percentage. The lower the percentage, the darker the glasses will be. At under 20% VLT, it becomes hard to see even in a lit room.

The [Laser Safety Program](#) would be happy to offer recommendations.

Example vendors:

- [Kentek](#)
- [Laservision](#)
- [NoIR](#)
- [ThorLabs](#)

[/su_spoiler] [su_spoiler title="How do I find appropriate laser enclosure/curtain/barrier?" open="no" style="fancy" icon="chevron" anchor="" anchor_in_url="no" class=""] Laser protective barrier manufacturers will provide a maximum irradiance level that the barrier can withstand for a certain amount of time (typically 100 seconds). For example, values for fabric barriers may range from 200 W/cm² to 400 W/cm² for 100 seconds.

To select a barrier, the maximum possible irradiance for the laser will need to be determined at the point where the barrier will go. This value must be less than the barrier's threshold irradiance.

Example vendors:

- [Beamstop'r](#)
- [Kentek](#)
- [Laservision](#)
- [Rockwell Laser Industries](#)

[/su_spoiler] [su_spoiler title="How do I know if a laser is dangerous?" open="no" style="fancy" icon="chevron" anchor="" anchor_in_url="no" class=""] Lasers that are Class 3B may cause eye damage within the average person's quarter second blink response. Lasers that are Class 4 may cut, pierce or burn. The classification will normally be found labeled on the device.

[/su_spoiler] [su_spoiler title="Is my laser pointer safe?" open="no" style="fancy" icon="chevron" anchor="" anchor_in_url="no" class=""] Most laser pointers available for purchase in stores are safe.

However, there are some laser pointers available for purchase online (such as on eBay or Amazon) that are Class 3B. These laser pointers are sometimes not labeled as Class 3B even though they meet the criteria.

If you would like to learn if your laser pointer is safe, please contact the [Laser Safety Office](#) for evaluation.

`[/su_spoiler] [su_spoiler title="Can I use lasers outdoors?" open="no" style="fancy" icon="chevron" anchor="" anchor_in_url="no" class=""]` Because lasers may interfere with aircraft, research involving outdoor laser use must be carefully evaluated and the beam must be contained as much as possible. A notice to the FAA may be required, please contact the [Laser Safety Office](#) for help.

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