

Laser Safety Glasses Selling Points

Laser Safety Glasses are used to block out the harmful laser radiation and still allow the operators to see what they are doing. When your customers call looking for laser glasses, there are three things you need to find out. **The most important is the wavelength of the laser.** The second is the power it operates at and finally how they are using the laser. The Visible Light Transmission can also be an important factor. The better the **VLT**, the easier it is to see what they are working on. Our glass lenses usually provide the maximum **VLT**.

They may know the wavelength. Most larger institutions have a laser safety officer or LSO designated. If not, ask them what type of laser, YAG, Holmium, CO₂, etc. If they don't know, there is usually an ID plate on the machine that needs to have that information printed on it. If the wave length isn't known, you can ask if they know the make and model of the machine they are using. We can look it up from that. If they don't know even that, you can ask them what they are using the laser to do. That is not the best way, but in certain cases we can make a reasonably good decision on eyewear from that.

The power of the laser is also an issue that can be determinative, so the same process can be used to figure that out. Finally, how they use the laser can be important. If they are doing welding or cutting with the machine, they might want a filter lens that also has some protection from bright visible light caused by the metal working as well as protection from the laser energy. Once the details on the laser are known, you can move onto the next consideration

Our laser safety glasses are rated by how much protection they give at certain specific wavelengths. These are marked on the glasses and on the sales literature. The ranges are in brackets of nanometers. From/To with an OD or Optical Density rating. The filters as marked with give the specified level of protection at all brackets. For example, the KG5 filter will be marked 870-950nm 4+OD, 950-1000nm 5+OD, 1000-1550nm 7+OD and so on That means that same filter gives protection at all of those wavelengths to various degrees as marked.

When picking out a pair of laser filters, you need to determine the frequency of the laser in nanometers (NM) the client is using, and then match the filter in the glasses up to it. They may ask for a certain OD. Most medical applications require an OD of 5 or higher.

You also should ask if they need to see the beam. If so, you can't offer too high of an OD, because they will not be able to see the beam. The alignment filter selection is where they should be looking.

OD stands for Optical Density. It is a measure of how much of a particular wavelength of light is blocked by the filter. The higher the OD, the more is blocked. Rule of thumb... OD 5 blocks all but .001 of 1 % of the laser frequency! That translates to 1/ 10,000th of 1 %, so in real terms almost none gets through.

Most of the filters we use are all integral. All the material is the filter. They are not clear glass with a flash coating on them. This makes for a more durable AND LONGER LASTING pair of glasses. A small scratch on a coated filter makes it useless and it must be replaced. Our filters will stand up to years of durable service.

Our most popular filters are the KG5 and BG38/42. They are made of glass, not plastic. What sets them apart is that they allow much more visible light through them. So, a competitor's filter in plastic that blocks the same frequencies, will usually be much darker than our glass version.