



## Safety Glasses and UV Protection

We often encounter customers calling in looking for safety glasses that offer UV (Ultraviolet) protection and with valid reason. UV light is harmful because it can be absorbed by the eye which can lead to cataracts or other severe eye damage. UV damage is also cumulative over time so providing protection starting at younger ages is important. The primary source of UV light is the sun, but other sources include welding arcs, video display terminals, fluorescent lighting, and mercury vapor lamps.

All polycarbonate lenses will minimally block 99% of up to 385 nanometers (nm) of UV light. UV inhibitors are mixed into the polycarbonate material when the protective lenses are molded to screen 99.9% of all UV radiation, even in clear tints.

Sometimes our customers will inquire about UV-C and request safety glasses that can offer them the proper protection. There are actually three types of UV Rays as follows:

- UV-A (315-400 nm): Over 98% of solar UVR exposure is in the form of UVA.
- UV-B (280-315 nm): Accounts for less than 2% of our solar UVR exposure, as much of it is absorbed in the upper atmosphere.
- UV-C (100-280 nm): Exposure is insignificant for most people, as solar UVC is readily absorbed in the atmosphere before reaching the earth's surface.

If your scenario involves lasers or instrumentation that produces UV-C at high levels, please contact the Conney Safety Services Team as this could require special product recommendations from a laser eyewear specialist.

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