



**Electro Optical Components, Inc.**

5460 Skylane Boulevard, Santa Rosa, CA 95403

Toll Free: 855-EOC-6300

[www.eoc-inc.com](http://www.eoc-inc.com) | [info@eoc-inc.com](mailto:info@eoc-inc.com)



## **Glass Mirrors and CO<sub>2</sub> Lasers Don't Mix!!!**

A standard metal mirror, like gold coated/plated copper, is a better solution for CO<sub>2</sub> laser applications than glass or silicon substrate mirrors. Copper will withstand several MW of laser power and not crack or disintegrate.

Glass mirrors and CO<sub>2</sub> lasers don't mix. A user had a wooden toolbox that was hit by an 80 Watt beam from their CO<sub>2</sub> laser, and it caught fire!. After a short conversation it became clear what had happened. They had a low power CO<sub>2</sub> laser system, fitted with what appeared to be gold coated glass mirrors. This setup can be extremely dangerous. Even in low power systems, these glass mirrors can heat up. The mirror will crack and fall apart, and the laser beam can then pass straight through the mirror aperture.