



2429 Oakwood Blvd Melvindale, MI 48122 Phone 800.537.2831 Fax 800.638.8577

## GLASS

Glass was the first lens material used to make modern day eyeglasses. Its earliest use is documented back to the 13th century in Venice, Italy. It remained the only lens material choice for almost 600 years until the introduction of plastic lens materials in the mid 1900's.

Glass lenses provide the best optics and clarity of vision. However, many ECPs shy away from using glass because it can be broken. Glass lenses are available in an almost limitless variety of designs, from single vision, multifocals, progressive lenses and occupational designs. These lenses must be tempered for impact resistance. Makes up around 5% of the total usage.

### Pros

- Provide the best optics and clarity of vision
- The most scratch resistance of all
- Can be made to a very high index (1.8)

### Cons

- Very heavy— much heavier than plastic
- Breakable thus can cause injury
- Uncomfortable
- Poor impact resistance as compared to high index plastic and poly

Material	Index	ABBE	Specific Gravity
Crown Glass	1.523	58.5	2.58
Photogray X	1.523	57.6	2.41
1.60 Glass	1.60	42	2.38
1.70 Glass	1.701	30.3	2.99
1.80 Glass	1.801	25.4	3.24

X-Cel Optical Company is located in the city of Sauk Rapids , centrally located in Minnesota . They are the only remaining manufacturer of glass lenses and polarized glass lenses in the USA , providing many fixed tint colors and filter glasses. Many of these lenses cannot be sourced from any other lens supplier in the world.

With most of these materials X-Cel can custom make lenses to fill special low vision and other difficult and or special vision Rx's including those used for occupational and sporting activities.

To visit their website go to Lens Availability page and click on LENS INFORMATION