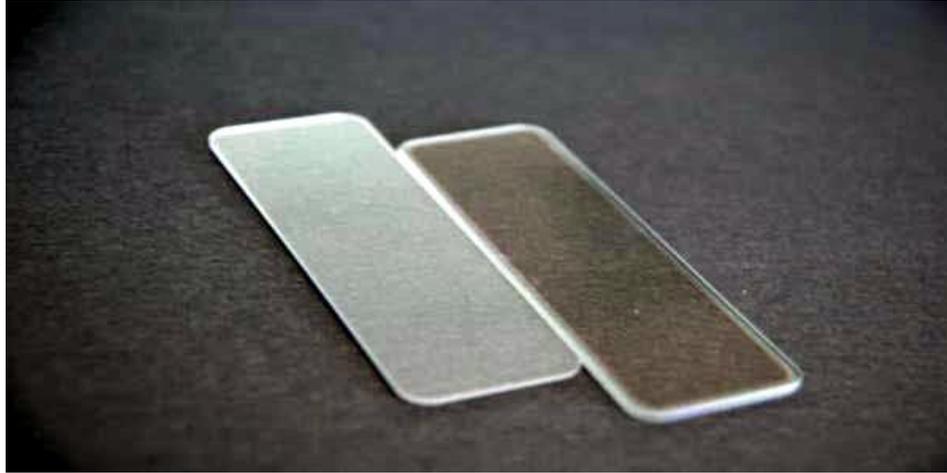


## Antireflection Coatings (AR)



### **What is AR Coating?**

Firstly, main feature of AR coating is used to reduce reflection and increase the visibility, hence increase light transmission and transparency.

### **Substrate Applicable**

-Polycarbonate  
-CR39

-Zeonex / Topas  
-ADC200

-Ultem  
-Glass

### **Reduction in reflective light**

Normally, when light strike into a lens without AR coating would cause the light almost totally reflected and affects the efficiency of vision. This will make sight of these users more blur and cause glare on the lens surface.

On the other hand, an AR coated lens let the light totally transmit through the lens to avoid reflection occur. Besides, the light reflected from the inner surface and light reflected from the outer surface of the film to be nearly equal, so canceling each other out and reducing glare.

Subsequently, it also can be beneficial when driving car especially at night. Many drivers experience the glares and halos around lights at night. So, an AR coating can reduce these effects and can let driving less of a distraction, hence increase the visibility. Due to it can get rid of the glares, so AR Coating is also known as Anti-glare

### **Improving look and appearance**

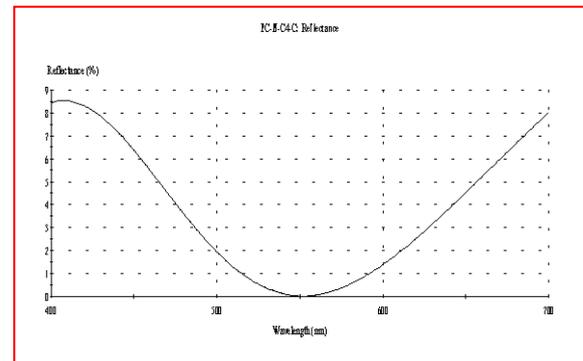
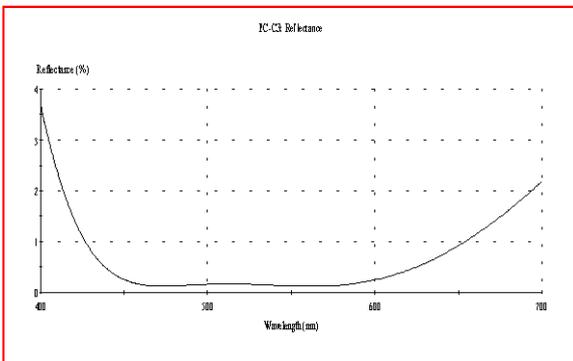
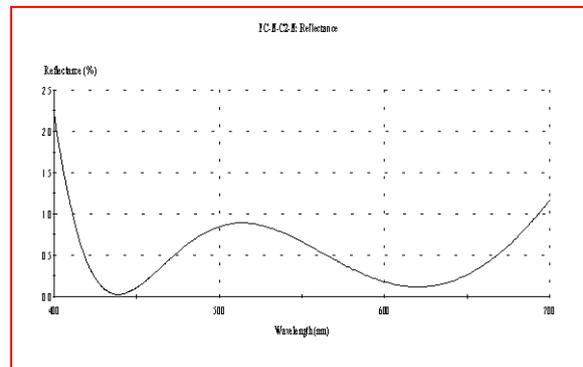
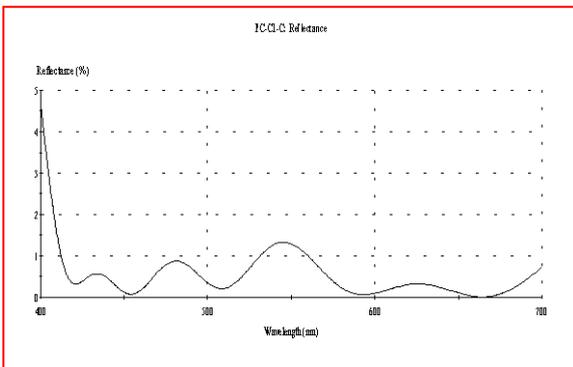
For example, with glass that does not have anti-reflective coating, outside images tend to be reflected by the glasses and block out the wearer's eyes when taking a photograph whereas with AR coated lenses do not have this problem and can see the eye clearly when taking a photograph.

The different between Anti Glare and Anti Reflection coating is anti glare reduces the reflection by diffusing the incident light into random reflection angle. With this method the sharpness and clearness of the image will be affected.

GF Technology Antireflection coating engaging energy transfer method to reduce the reflection of the surface without scarifying the sharpness or clearness of the image behind the protective screen.

Anti Reflective coating also being uses in many applications such as laser industry which always using single wavelength AR or 2 point AR.

Anti Reflective can be design to a specific specification or specific angle or multiple angles in a single wavelength.



Question asks:

- Anti Glare Vs AR
- Type of AR
- Application of AR
- Achievable spec
- Max Transmission
- Environment
- Can it be Mask and how accuracy of the masking?

- Color on AR coating
- Printing can apply on AR surface
- How big the substrate is can be coated
- How lasting
- AR apply before or after hard coat and why?
- Advantages using AR
- What type of material can do AR?