

Application Note

How to Protect Museum Quality Artwork with UV Blocking Glass

UV Blocking Glass acts as a mirror with regard to ultraviolet light wavelengths (400nm and shorter). UV rays are one of the most significant sources of degradation in museum artwork. As such it is a problem that has prompted much consideration. Since artwork is intended to be seen, it is important that any solution to this problem not obscure visible light (400 – 700nm) wavelengths significantly while blocking or reflecting UV light. Adding an Anti-Reflection coating allows greater clarity in the visible light spectrum by helping to alleviate any inherent reflection in the glass.

Many UV Blocking Glass solutions are said to provide a certain percentage of protection from UV light, often ranging between 96% and 99.9%. It is important to note that there are different kinds of UV light and the amount of protection provided for each kind of UV light is as important as its overall protection against UV. UV B and UV C radiation for instance are significantly blocked by regular glass, but UV A radiation isn't significantly blocked. If an overall rating were given to regular glass it might deceive someone into thinking that their artworks were perfectly fine behind regular glass, when in fact UV A radiation can be virtually unhindered as it passes right through regular glass. Taking this into account means knowing that the UV Blocking Glass you've opted to use doesn't just protect versus UV in general, but is specifically blocking significant portions of the entire range of ultraviolet (UV) radiation.

In addition to utilizing UV Blocking Glass it is also important to adhere to the following guidelines when displaying valuable artwork:

Use just enough light to display the artwork as intended. Even though implementing a UV Blocking Glass solution, it is important to reduce light levels in the display area because the small amount of UV that does pass through adds up over time. Reducing light levels reduces the amount of UV the artwork is exposed to.

- Do not expose artwork to direct sunlight. The sun is a significant source of UV B and UV A (most of the UV C and shorter wavelengths are blocked by the atmosphere). It is also a high intensity light source that conveys much higher levels of UV radiation than regular artificial light sources. Use Incandescent, not fluorescent light sources. Fluorescent lights produce much more UV light than incandescent lights do.
- Other environmental concerns can hazardously affect your artwork as well. Any museum quality artwork should be contained in a controlled environment. Humidity and oxygen are traditional culprits for artwork degradation. In these situations it may be ideal to use a hermetically sealed viewing case.
- Do not allow the use of flash cameras. The intense and unfiltered light from a flash camera adds up over time. Allowing artwork to be exposed to hundreds of thousands of flashes will likely have a perceptible effect on the piece.

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Glass Fabrication



Coating Deposition



CNC Machining



Strengthening - Chemical & Heat



Screen Printing of Graphics



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