



PHOTOCHROMIC PIGMENT

Glomania Photochromic Pigments are micro-capsules in a pigment powder form. They are colorless in their inactive state and become excited and change color when exposed to an ultraviolet light source. This can include, Sun Light UV Black Light and UV Led's (the artificial source of 395 -400nm black light . These pigments are reversible and return to their original state after a while where no UV Black light is present.

- 1: Particle Size: 1 - 10um
- 2: Specific Gravity: 0.26g/cm³
- 3: Color changing property : Colorless to Color. This process can repeat in and out of the presence of UV Rays or Ultraviolet Black Light
- 4: Temperature Resistance: >220 - 260°c

	Code	Base Color	Excited Color under Ultraviolet	
1	GPH-001	White	Red	
2	GPH-002	White	Chartreuse	
3	GPH-003	White	Blue	
4	GPH-004	White	Purple	
5	GPH-005	White	Sky Blue	
6	GPH-006	White	Yellow	

NB: The colors shown above are for reference only and not the colors you will actually see.

- 5: Properties: Non-toxic, harmless, free from any radioactive additives with good chemical stability. These pigments are insoluble in water. It can be added to various mediums like paint, printing ink, plastic, resin, glass etc.



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6: Mixing:

Some shear is required to get a well dispersed mixed pigment also because the micro-capsules agglomerate slightly when in powder form. To disperse the powder we recommend using a three- roll mill. If too much shear energy is used this will weaken the photochromic properties.

7: Light:

Photochromic pigments will degrade from UV exposure over time. Exact life expectancies depend on a number of factors the intensity and duration of the UV exposure. Some of the colors will degrade fast that others, Do not use UV Inhibitors over the Photochromic Mico-capsules as this will interfere with the color changing properties.

8: Heat:

Damage to the micro-capsules will occur when exposed to excessive UV and Heat.

9: Chemicals:

Glomania Photochromic Pigments can be incorporated in to many types of non aqueous inks. However, care should be taken to avoid the use of polar solvents such as alcohols, acetates, as these can damage the micro-capsule wall.

Mixing Ratios for production with Glomania Photochromic Pigment Powder

There is no standard mixing ratios and this is best left to the end user to determine ho much pigment they require to suit their project. The more pigment you add the stronger the color change would become You can choose your final color according to your taste. Remember you can always add pigment but cannot remove it.

General guidelines that Glomania suggests as a reference for use with your project.

Water based Inks and Paints	3% to 30%
Oil based Inks and Paints	3% to 30%
Plastic Injection, extrusion	0.2% to 5%

This information is a guideline and for a reference point only. Many different applications require different measurements.

For Aqueous applications we suggest using our photochromic liquid dye.