Materials that React to Black Light

It's not enough just to beam black light around. You have to have things that react to it. Here are some examples.

Fluorescent Stuff - Glows Under Black Light

"Fluorescent" stuff glows only while it is being illuminated with black light. When you turn off the black light, or move the object away from the black light, the glow stops.

Fluorescent Paint

Just about any paint that is unnaturally bright, or day-glow, will glow under black light.

- fluorescent (day-glow) tempura paint - Try an art supply store or craft store.
- fluorescent (day-glow) poster paint - Try art the supply section of a stationary store.
- fluorescent (day-glow) spray paint - Try your local hardware store or anybody that carries spray point. Fluorescent blue is particularly tough to find. Try Tru-Value hardware stores.
- Rosco makes a line of regular vinyl acrylic fluorescent paint. Colors include: Red, Orange, Yellow, Green, Blue, Pink, Gold.
- Rosco also makes a special Vivid FX line. Colors include: Lemon Yellow, Orange Sunset, Orange, Scarlet Red, Hot Pink, Magenta, Violet, Deep Blue, Brilliant Blue, Aquamarine, Electric Green, Deep Green.
- Wildfire makes a line of water-based acrylic fluorescent paint. Colors include: Brilliant Yellow, Deep Yellow, Bright Orange, Hot Pink, Bright Red, Deep Violet, Magenta, Deep Blue, Bright Green.

A lot of Halloween decorators report problems finding fluorescent blue spray paint. Krylon makes a fluorescent blue spray paint, #3109. If your store does not carry it, ask them to order some.

Warning: The glow color of fluorescent paint is not necessarily the same as the daylight color. Most red day-glow paints actually glow orange under black light. Do some research before you buy.

**Invisible black-light paint**

"Invisible paint" sounds somewhat like "dehydrated water". Not much to it. But there is such a thing, and it is very useful.

Invisible black-light paint is merely invisible under *normal* lighting. When the black light hits it, it springs into vibrant color!

Note - Invisible black light paint dries clear, or with a slight milky haze to it, depending on the brand, thickness of applied layer, and color of the black light glow. Some brands look like white
paint until the black light hits them. Since these aren't really transparent, I wouldn't consider them to be really "invisible", but they might be sold as such. Ask before you buy.

The potential for this material is to bring about a sudden appearance, disappearance, or transformation. Consider the simple case of a blank white wall in a dimly-lit hallway. When your guests reach the middle of the hall, they see that the walls are suddenly spattered with red blood, perhaps spelling out a spooky warning. A moment later, the red spatters are gone.

Another trick is to take a painting and doctor it up with invisible black light paint, so that it transforms into something sinister when properly illuminated. In order to get the full effect, you should use the transparent paint, so that in normal light, all you see is the painting.

- **Rosco** makes an Invisible Blue vinyl acrylic paint.
- **Wildfire** makes a line of water-based paint that is normally white, but glows under black light. Colors include: Invisible Clear Blue, Invisible Blue, Invisible Yellow, Invisible Orange.
- **Wildfire** also makes an Invisible Blue Clear Coat that is normally clear.

**Where are the cheap black-light paints?**

Fine quality black-light paints tend to be expensive. Your best bet for making something fluoresce on the cheap is laundry detergent. Many brands of detergents contain "optical brighteners". These are chemicals that pick up the ultraviolet light in the sunlight and fluoresce, making the clothes look brighter. They work even better under black light, giving rise to the infamous "shirt glow" in amusement parks where black light is used. Just go into the laundry room with a black light and see what glows. Could be liquid soaps, powdered soaps, laundry "blueing". Try it all. If you don't have any such stuff, go to the discount store and stalk the laundry area. Read the boxes, looking for "optical brighteners" on the contents panel, or claims of "whiter brighter". Don't bother looking for phosphorous. It sounds nice, but has nothing to do with what makes the soaps glow.

Another thing to look for is RIT-brand fabric whitener and brightener. It should be in your supermarket with the fabric dye. Essentially, this is pure concentrated optical brightener, and fluoresces a strong blue-white, even in tiny quantities. Under white light, RIT is completely invisible. It is available in powder or liquid form. The powder can be used as-is, for dusting, or mixed with water for a spray.

You can make your own UV-sensitive paint by mixing RIT-brand fabric whitener and brightener with just about any commercial paint, lacquer, or varnish. If the paint is water-based, you can use the liquid RIT. If the paint is solvent-based, use the powder RIT. The ratio is not critical - anywhere between 1:5 and 1:20 (RIT:paint).

Avoid mixing RIT with acrylic materials that are intended for use outdoors, or claim to be "UV stabilized". The chemicals in such materials prevent the UV light from getting to the RIT, so it kills the glow. When in doubt, mix a small batch and test with your black light before using it in quantity.
If you want color, you will probably want cheap poster or tempra paint, in fluorescent colors. You can get tiny pots of them in craft stores, but the prices are a lot better by the pint at art supply stores.

Warning: Do not attempt to improvise fluorescent makeup. Some people have reported allergic reactions when they tried to smear Woolite or Rit on their faces!

**Assorted Fluorescent Stuff**

- fluorescent (day-glow) tempra paint
- fluorescent (day-glow) poster paint - Try art supply section of stationary store.
- leftover fluorescent paint, mixed with water, or the water used to wash paint brushes used for fluorescent paint
- fluorescent (day-glow) spray paint - Blue is particularly tough to find. Try Tru-Value hardware stores.
- RIT-brand fabric whitener and brightener - Glows blue-white. Available in liquid or powder form.
- Woolite - Glows greenish-white.
- Era-brand laundry detergent
- just about any brand of laundry detergent - Try out whatever you have in the house!
- tonic water - Glows blue due to quinine content. Drinkable!
- ink from fluorescent highlighters - Try out just about any bright color. Many of these inks are water-soluble, so you can crack open a highlighter and drop the ink (usually contained in an absorbent felt pad) into fountains, toilet reservoirs, and other areas where glowing water is desired.
- depression-era "vaseline" glass
- ordinary glass - Gives a dim blue fluorescence when subject to very short wave UV (dangerous).
- certain rocks and minerals - Various colors. Some respond to short wave UV, others to long wave.
- certain gems - diamonds (some), tsavorite, ruby
- Uniball Uni-gel pens - Only certain colors glow. Try pink and orange.
- most kinds of fishing line and weed-whacker line - If you want it invisible under black light, try before you buy!

This hair spray says that it glows under black light, but doesn't claim to be phosphorescent.
This is a package of the powder form of Rit brand Whitener and Brightener.

**Phosphorescent Stuff - Glows In The Dark**

"Phosphorescent" material glows in the dark, after exposure to a bright light. It is sometimes called Glow In The Dark (GITD). Black light makes phosphorescent stuff glow vividly!

**Phosphorescent Paint**

- **Rosco** makes ROSCOGLO, a paint that glows with a classic yellow-green light. Approximately $5/ounce, $40/pint [January 2004].
- **Wildfire** makes a water-based Glow Green paint.

I think I picked this up at [Michaels](https://www.michaels.com) in 2002.
This alien-themed GITD paint was marketed shortly after the release of the movie *Toy Story 2*. *Wal-Mart*

This GITD spray often turns up around Halloween. I think I got this sample at *Wal-Mart*, circa 2002.
Assorted Phosphorescent Stuff

I found this little GITD Buddha in San Francisco’s Chinatown during Thanksgiving 2002.

I think I found this GITD makeup during Halloween 2002.
Warnings

Allergic Reactions
Do not attempt to improvise fluorescent makeup. Some people have reported allergic reactions when they tried to smear Woolite or Rit on their faces!

Only use makeup that is designed for to be used as makeup. Such products are usually safe. But even then, be on the lookout for signs of possible allergic reactions.

Different Color Under UV
The glow color of fluorescent paint is not necessarily the same as the daylight color.

For some reason it is difficult to get a good red color under black light. Most fluorescent red paints actually glow some shade of orange under black light.

Do some research before you buy. Make sure you have the color you want before slathering it on a prop! When in doubt, take a battery-operated black light to the store when shopping.

No Changing The Color
Do not plan to take one fluorescent color and change glow color by mixing in pigments or dyes - or by putting a filter in front of it.

This has never worked well for me. I suspect that the electronic transitions that make fluorescence possible result in monochromatic light that is hard to change.

How do you apply black-light paints?
Black-light colors are best applied in the dark, under black light. That way you see exactly what you are getting.

Liquids can be brushed, rolled, or sprayed, depending on how thick they are. (We used a compressed-air paint-sprayer to cover our giant spider.) Powders can be dusted on, a famous trick to add a glow to spun spider webs.

Some of these colors, especially the RIT, are very hard to get off your hands. You might get the visible stuff off, but under black light, you'll light up like a Christmas tree.
If you are painting on-location, watch out for overspray, dripping, and other clever ways to put paint where it doesn't belong. If you are painting under white light, you might not notice until too late that you have gotten a fierce glow where it should not be!

If you leave black-light-sensitive props out in the sunlight, plan on repainting them regularly. Black light pigments are delicate and fade rapidly.

**Black Light Vendors**

Here is a partial list of companies selling black light equipment and supplies...

* **Terror By Design**
  - Glow in the dark paint, tape, pigment powder.
  - Invisible UV Crayon and paint.

* **Shannon Luminous Materials**
  - UV paints, dyes, and pigments.

* **Wildfire, Inc.**
  - UV paints, dyes, and pigments.

* **NOCTURN UV Technology**
  - UV paints, dyes, and pigments.

* **Rosco**
  - "Clear Colour" - water-based paint, dries clear, fluoresces under UV.

* **Theatre Effects**
  - Glow in the dark decorations, paint, tape, and makeup.
  - clear/invisible UV-fluorescent paint, makeup, ink, crayon, powder
  - opaque/visible/dayglow UV-fluorescent paint, makeup, posters

* **Home Depot**
  - day-glow paints

* **Spencer Gifts**
• Glow in the dark paints, decorations.
• Black light fluorescent paint, posters, toys.

http://www.carolinastamp.com/inks.htm

• Invisible, black-light fluorescent inks, suitable for hand-stamps.

Materials That Block Black Light

Sometimes you want to keep black light from reaching part of a scene, so that not everything glows. Sometimes you need to avoid materials that might accidentally block black light.

• Lighting filter gels are available that pass visible light, but block ultraviolet. One such gel is GamColor no. 1510, made by Great American Marketing.
• Clear plastic tubes are available to place over fluorescent lamps to protect them from damage and contain the broken glass in the event of an accident. The plastic used in the construction of these protective tubes tends to block some UV. In the sample I tried, it blocked about 1/3 of the black light.
• Quartz glass is transparent to UV, but ordinary glass absorbs a small quantity of the UV passing through it.
• Automotive glass blocks most of the UV in light shining through it. This is perhaps due to the plastic shatter-protection layer between the laminated glass sheets.