UV fluorescent visible pigments

**Description**

Arco Iris Invisible Fluorescent Pigments are inorganic luminescent compounds which absorb short-wave and long-wave ultraviolet light (U.V.) and re-emit this energy as vivid colours in the total visible spectrum. They are often called Blacklight pigments or Ultra violet pigments.

**Aspect**

Blacklight pigments show little or no self-colour under ordinary light. Powders are semi transparent with a white aspect. They can be seen over dark backgrounds. They have low opacity and covering power. Under U.V. light, our Luminescent Pigments immediately emit intense luminescent colours.

**Destination**

All Luminescent Pigments are useful in visible marking. all our Luminescent Pigments are invisible under ordinary light and uniquely suitable for creating invisible security marking media. The intensity of our Luminescent Pigments permit them to be formulated into printing inks, adhesives, plastics, pulps, and other materials, such synthetic fibers, in low concentrations with resulting economy.

**Colours (EXCITATION SOURCE: 365nm)**

- Blue (Maximum emission: 450 nm)
- Green (Maximum emission: 515nm)
- Lime green (Maximum emission: 535nm)
- Violet (Maximum emission: 612nm)
- Yellow (Maximum emission: 550nm)
- White (Maximum emission: 510nm)
- Red (Maximum emission: 420nm)
- Orange (Maximum emission: 590nm)
- Rose (Maximum emission: 605nm)

Some other colors can be obtained by mixing the pure primary colours (red, green, blue)

Some colours are more intense and visible than others: Green is very intense, while violet is weaker.
Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>COMPOSITION</td>
<td>AROMATIC HETEROCYCLE</td>
</tr>
<tr>
<td>MELTING POINT</td>
<td>&gt; 280 - 650°C</td>
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<tr>
<td>APPEARANCE &amp; ODOR</td>
<td>White, odorless powder</td>
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<tr>
<td>AVERAGE PARTICLE SIZE</td>
<td>5 – 8 MICRONS</td>
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<tr>
<td>SOLUBILITY</td>
<td>INSOLUBLE IN WATER AND MOST COMMON ORGANIC SOLVENTS</td>
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<tr>
<td>DENSITY</td>
<td>2300kg/m³</td>
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<tr>
<td>pH VALUE</td>
<td>7.0 at 20°C</td>
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<tr>
<td>OIL ABSORPTION</td>
<td>22-35</td>
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</tbody>
</table>

They contain no radioactive materials and are generally non-toxic in normal condition of handling and use.

Resistance:

They resist U.V. degradation and provide high performance over a long effective life. Our Luminescent Pigments offer light fastness and heat stability which is sufficient for most applications. Under normal ambient conditions, Luminescent Pigments retain their original color and intensity indefinitely in the absence of direct U.V. light. Under sun light for an extended period of time, they can be altered.

Mixing et compatibility

The powders can be milled without loss of fluorescence intensity and are available in very small particle sizes (5μm). Mixing ratio: 1 to 10 % into all waterbased/solvent based system, plastics

Warning: Do not use any type of UV screen with the pigments, as it will stop the pigments reaction.

Arco iris Luminescent Pigments are also available mixed as a ready to use fluorescent inks in water bases or solvent bases.

Storage

Store indefinitely in a dry and cool place, in shade or obscurity.