



Phosphorescent Pigments

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BRILLIANT PHOSPHORESCENT PIGMENTS

brilliant BPP Series are inorganic phosphorescent pigments with long afterglow, recommended for applications requiring immediate afterglow with good duration. These pigments are very stable at high temperatures and are resistant to most chemicals.

APPLICATIONS

brilliant BPP Series pigments are designed for use in solvent-based paints, screen inks, plastics, and other applications. For screen printing a minimum mesh size of 43T is required, with a loading level of around 35%. For paint applications, a loading level of about 20% is recommended. For paint and ink applications, the use of a white substrate will help generate the best afterglow effect. Plastics require loadings from 5%, depending on the thickness of the part.

For use in water-based systems, please select our "W" grade versions, available for all shades in the series except red, orange and white. For these shades, the standard grades are acceptable for both water and solvent systems.

DISPERSIONS

brilliant BPP Series pigments can be incorporated into most formulations very easily. It will disperse with high speed stirring. Because of the high specific gravity of the pigments, liquid dispersions should contain suspending agents to reduce hard settling. Due to the abrasive nature of this series, it is recommended that a lubricant should be used during extrusion.

NOTES ON USE

1. Milling or grinding should be avoided as this may damage the crystalline structure of the pigment, leading to reduction in luminescent emissions. For this reason, the particle size of the pigment makes it unsuitable for use in thin film applications such as lithographic inks.
2. The use of opaque fillers or extenders, as well as conventional pigments should be avoided as these may quench luminescent emissions.
3. If the end product is intended for exterior use then its lightfastness should be checked for suitability.

HEALTH AND SAFETY

brilliant BPP is not radioactive and is generally considered to be of a low toxicity if used and stored as recommended. If stored in sealed containers, the shelf life is indefinite. However contact with strong mineral acids should be avoided as this may lead to the liberation of hydrogen sulphide. Please refer to the separate MSDS for specific information.

AFTERGLOW INTENSITY

| Particle Size (um) | 10 min | 60 min | Duration | Shade/Code | Daylight | Afterglow |
|--------------------|--------|--------|----------|-----------------------------------|----------|-----------|
| 15-45 | 170 | 27 | > 6hr | White BPP-WH1006 | | |
| 10-45 | 25 | 1.2 | > 6hr | Orange BPP-OG1029 | | |
| 10-45 | 25 | 1.2 | > 6hr | Red BPP-RD1051 | | |
| 15-45 | 18 | 3.5 | 3hr | Purple BPP-PR1026 | | |
| 23-35 | 150 | 13 | 6hr | Blue BPP-BL1039 | | |
| 15-45 | 280 | 35 | > 12hr | Blue-Green BPP-BG1023 | | |
| 15-40 | 200 | 25 | 10hr | Yellow-Green BPP-YG1001 | | |
| 5-15 | 220 | 29 | > 12hr | Yellow-Green BPP-YG1007 | | |
| 10-30 | 40 | 4 | > 1hr | Traditional Phosphorescent | | |

TYPICAL LIGHT SOURCE:

Excitation illuminance: **1000x lx, D65 standard** Excitation time: **10 minutes** Measurement standard: **Din 67 510 Part 1** Temperature: **15 degrees C**