

Technical Data Sheet

Phantom Invisible Pigments (DINV)

General description

The DINV Phantom Invisible pigments are organic, UV reactive pigments which are virtually invisible in most applications until excited by UV light (long wave 365nm or short wave 254nm).

With strong, bright emissions, these pigments are perfect for indoor applications due to their limited lightfastness. They also have no afterglow. DINV Phantom Invisible Pigments are designed for use where they are not intended to be apparent, such as tracers and security applications. They can also be used for a variety of novelty effects where its invisible nature can be exploited.

Because each application can require different levels of UV response, recommended use levels vary. Use 0.5% as a starting point and adjusted as needed. Prolonged outdoor exposure is not recommended due to the limited lightfastness properties of this product.

Applications

- Tracers and tracking
- Security applications

Available Colors

Product Code	Color
DINV-13	Red
DINV-17	Yellow
DINV-18	Green

Packaging:

- 1 can = 1 lb (0.5kg)
- 1 can = 5 lb (2.2kg)
- 1 box = 22 lb (10kg)

Storage & shelf life:

120 months when kept in closed original packaging in a dry place at ambient temperature.

Safety & regulatory:

Safety Data Sheet available on request

Usage

Milling	DINV Phantom Invisible Pigments can be milled as necessary to reduce particle size. However, strong milling or grinding may result in a reduction of emission intensity
Fillers	The use of opaque fillers or extenders should be avoided as these may quench luminescent emissions.
Compatibility	DINV Phantom Invisible Pigments should not be blended with conventional pigments. They can be mixed with other invisible pigments, as these colors work additively. The invisible color can be applied over another color in the form of a clear lacquer to achieve a different color under UV light.

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	DINV-13	DINV-17	DINV-18
Emission Color	Red	Yellow	Green
Peak emission	614 nm	533 nm	507 nm
Appearance	Off white powder	Off white powder	Off white powder
Specific Gravity	1.4	1.4	1.02
Average Particle Size	5 µm	5 µm	5 µm
Maximum Processing Temperature	50°C	100°C	250°C
Lightfastness Blue Wool Scale	1-2	1-2	1-2
Oil Absorption per 100 g of pigment	41 g	49 g	42 g
Bulk Density (g/ml)	0.210	0.155	0.183
Bulk Density (lbs/gal)	1.75	1.29	1.53
Chemical Composition	Organic europium complex	Organic non-ionogenic oxazine derivative	Quinazolinone