

Technical Data Sheet

VSF-0-05

General Description

- Daylight and ultra-violet responsive solid state fluorescent yellow pigment for outdoor applications with exceptional lightfastness.

Applications

- Outdoor applications where high lightfastness is required
 - 2K Urethane coatings & nitrocellulose lacquers
 - Solvent based paints
 - Water based paints
- The suitability in plastics is not recommended.

Product Features

- VSF-0-05 should be dispersed in the final application.
- The pigment is stabilized preventing the formation of agglomerates. Stirred in at the final stages of the dispersion process: no need for expensive and time-consuming milling machinery.
- Due to the nature of this pigment and production methods, the particle size distribution is extremely narrow.
- Exhibiting the same lightfastness as conventional yellow pigments.
- A clear topcoat has a positive impact on the long-term durability (ΔE).

Standard Color

Product Name	Description
VSF-0-05	Lightfast Yellow

Packaging:

1 box = 20kg
MOQ = 20kg

Storage & shelf life:

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

Safety & regulatory:

Safety Data Sheet available on request.

Physical properties

Appearance	Yellow Powder (greenish)
Hue under UV light	Bright Yellow (greenish)
Bulking density	0.25 g/cm ³
Density	1.7
Particle size D ₅₀	1 - 2 μ m
Lightfastness	7-8 BWS

Test methods and Certificate of Analysis (COA) available on request.

Bleeding data

Solvent	B
Butyl acetate	3
MEK	3
Xylene	2
White spirits	4
Butanol	4

Test method bleeding (B):

0.2 gram of pigment dispersed in 20 ml of solvent; shaken mechanically for 30 min on a flask shaker and filtered. The clear filtrate is observed for the degree of bleeding on a 1 to 5 scale. The higher the number (5) the better.

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Fastness to acid/alkali

Acid (5% HCl)	5
Alkali (5% NaOH)	5

Test method fastness to acid/alkali:

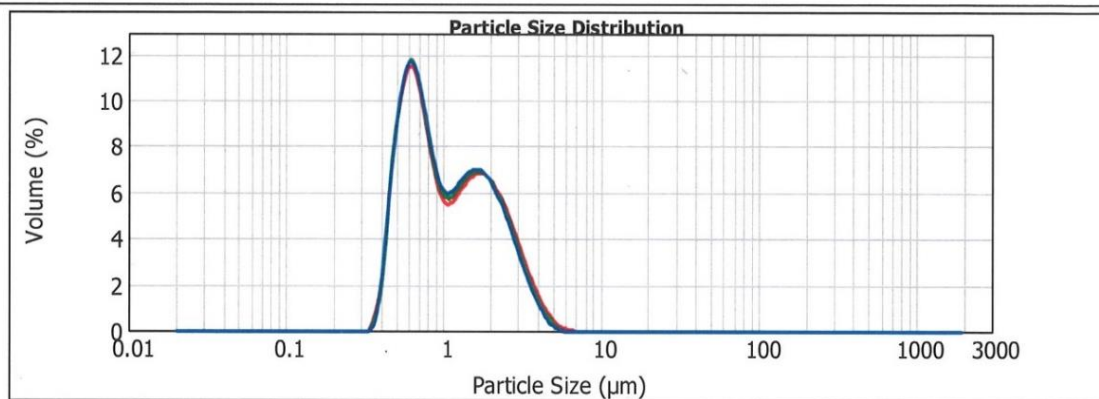
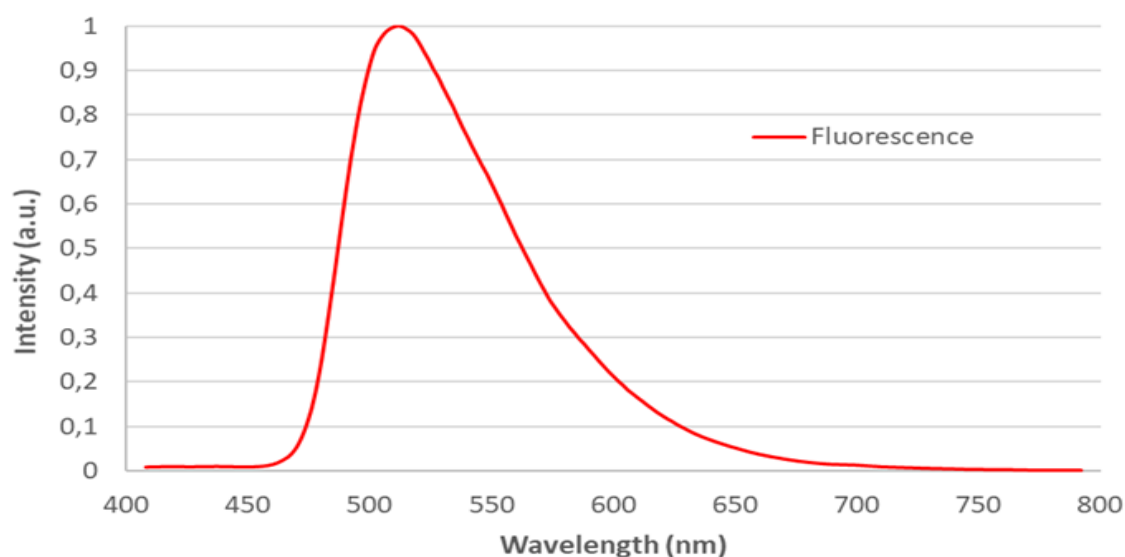
10 gram of dry pigment is mixed with 500 ml HCl or NaOH solution (5% in case of organic and 1% in case of inorganic pigment). After 1 hour, the pigment slurry is filtered and washed to a neutral pH. The color difference is accessed on a draw down between the treated and untreated sample on a 1 to 5 scale. Scale 1: considerable discoloration, scale 5: no discoloration.

Particle size distribution

d(0.1): 0.513 um

d(0.5): 0.957 um

d(0.9): 2.505 um


Fluorescence
 λ -max (5% in acrylic paint) = 519 nm (excitation at 350 nm)


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